

JOINT
PUBLIC NOTICE

CHARLESTON DISTRICT, CORPS OF ENGINEERS
69A Hagood Avenue

Charleston, South Carolina 29403-5107
and

THE S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
Office of Environmental Quality Control
Water Quality Certification and Wetlands Programs Section
2600 Bull Street
Columbia, South Carolina 29201

REGULATORY DIVISION
Refer to: P/N #2002-1U-472-W

8 November 2002

Pursuant to Sections 401 and 404 of the Clean Water Act (33 U.S.C. 1341), an application has been submitted to the Department of the Army and the South Carolina Department of Health and Environmental Control by

CITY OF ROCK HILL
C/O CHRIS COSTNER
STORM WATER DIVISION
P.O. BOX 11706
ROCK HILL, SOUTH CAROLINA 29731-1706

for a permit to place fill material in unnamed tributaries of

DUTCHMAN CREEK

at locations near Ebinport Road, located off of Business 21 (Cherry Road), across from Cherry Park in the City of Rock Hill, York County, South Carolina (Latitude 34.96462 N; Longitude 81.01261 W).

In order to give all interested parties an opportunity to express their views

NOTICE

is hereby given that written statements regarding the proposed work will be received by both of the above mentioned offices until

12 O'CLOCK NOON, MONDAY, 9 DECEMBER 2002

from those interested in the activity and whose interests may be affected by the proposed work.

The proposed work consists of a water quality / stormwater management project requiring impacts to 3,820 linear feet of stream (of which 1,125' is currently piped) and 0.064 acres of wetland to replace culverts, stabilize streambanks, and modify an existing detention pond. In detail, the proposed work includes the replacement of 1,125 linear feet of existing culverts with 1,338 linear feet of upsized culverts. Alteration of an existing stormwater area will require filling of 0.03 acres and flooding of 0.034 acres of wetland. Proposed channel modifications to 2,482 linear feet of stream are summarized as follows:

8 November 2002

IMPACT	LINEAR FEET
Riprap	122
Channel Widening / Bank Stabilization	487
Riprap / Channel Widening / Bank Stabilization	392
Retaining Wall / Channel Widening / Bank Stabilization	112
Retaining Wall / Channel Widening / Bank Stabilization / Riprap	31
TOTAL	2,482

The purpose of the proposed work, as stated by the applicant, is to minimize flooding and improve water quality.

NOTE: Plans depicting the work described in this notice are available and will be provided, upon receipt of a written request, to anyone that is interested in obtaining a copy of the plans for the specific project. The request must identify the project of interest by public notice number and a self-addressed stamped envelope must also be provided for mailing the drawings to you. Your request for drawings should be addressed to the

**U.S. Army Corps of Engineers
ATTN: REGULATORY DIVISION
69A Hagood Avenue
Charleston, South Carolina 29403-5107**

The District Engineer has concluded that the discharges associated with this project, both direct and indirect, should be reviewed by the South Carolina Department of Health and Environmental Control in accordance with provisions of Section 401 of the Clean Water Act. As such, this notice constitutes a request, on behalf of the applicant, for certification that this project will comply with applicable effluent limitations and water quality standards. The District Engineer will not process this application to a conclusion until such certification is received. The applicant is hereby advised that supplemental information may be required by the State to facilitate the review. Persons wishing to comment or object to Water Quality Certification must submit all comments in writing to the S.C. Department of Health and Environmental Control at the above address within thirty (30) days of the date of this notice.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. Implementation of the proposed project would impact freshwater habitat upstream of estuarine substrates and emergent wetlands utilized by various life stages of species comprising the red drum, shrimp, and snapper-grouper management complexes. Our initial determination is that the proposed action would not have a substantial individual or cumulative adverse impact on EFH or fisheries managed by the South Atlantic Fishery Management Council and the National Marine Fisheries Service (NMFS). Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

Pursuant to Section 7(c) of the Endangered Species Act of 1973 (as amended), the applicant has provided a protected species survey for the property associated with the activity described above. Based upon this report, the District Engineer has determined that the project will have no effect on any Federally endangered, threatened, or proposed species or result in the destruction or adverse modification of designated or proposed critical habitat. This public notice serves as a request for written concurrence from the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service on this determination.

The District Engineer has consulted the latest published version of the National Register of Historic Places for the presence or absence of registered properties, or properties listed as being eligible for inclusion therein, and this worksite is not included as a registered property or property listed as being eligible for inclusion

8 November 2002

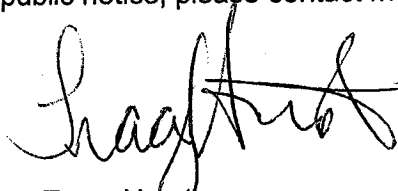
in the Register. Consultation of the National Register constitutes the extent of cultural resource investigations by the District Engineer, and he is otherwise unaware of the presence of such resources. Presently unknown archaeological, scientific, prehistorical, or historical data may be lost or destroyed by the work to be accomplished under the requested permit.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state, with particularity, the reasons for holding a public hearing.

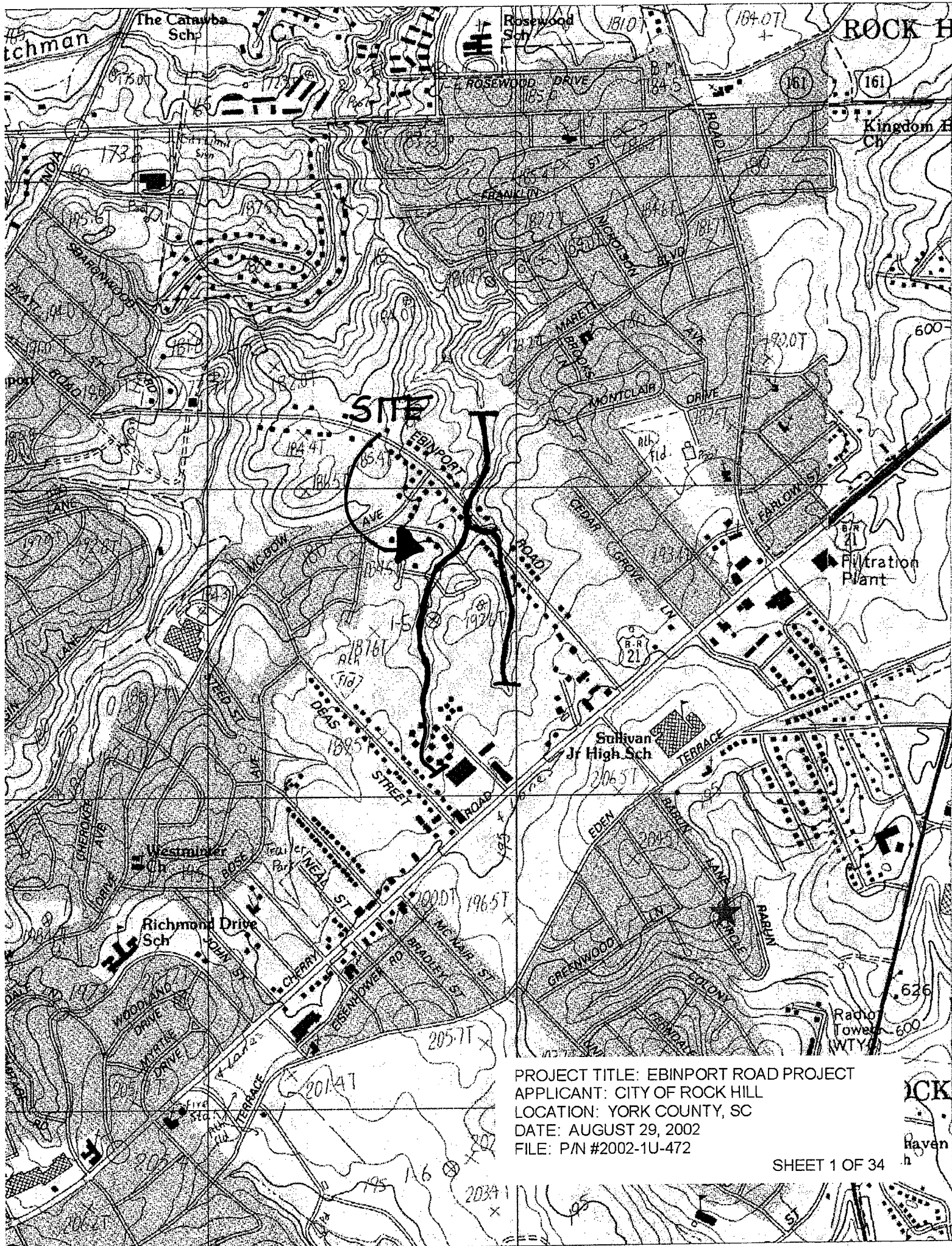
The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the activity on the public interest and will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency (EPA), under authority of Section 404(b) of the Clean Water Act and, as appropriate, the criteria established under authority of Section 102 of the Marine Protection, Research and Sanctuaries Act of 1972, as amended. That decision will reflect the national concern for both protection and utilization of important resources. The benefit that reasonably may be expected to accrue from the project must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the project will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production and, in general, the needs and welfare of the people. A permit will be granted unless the District Engineer determines that it would be contrary to the public interest. In cases of conflicting property rights, the Corps of Engineers cannot undertake to adjudicate rival claims.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this project. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

If there are any questions concerning this public notice, please contact me at 843-329-8044 or toll free at 1-866-329-8187.

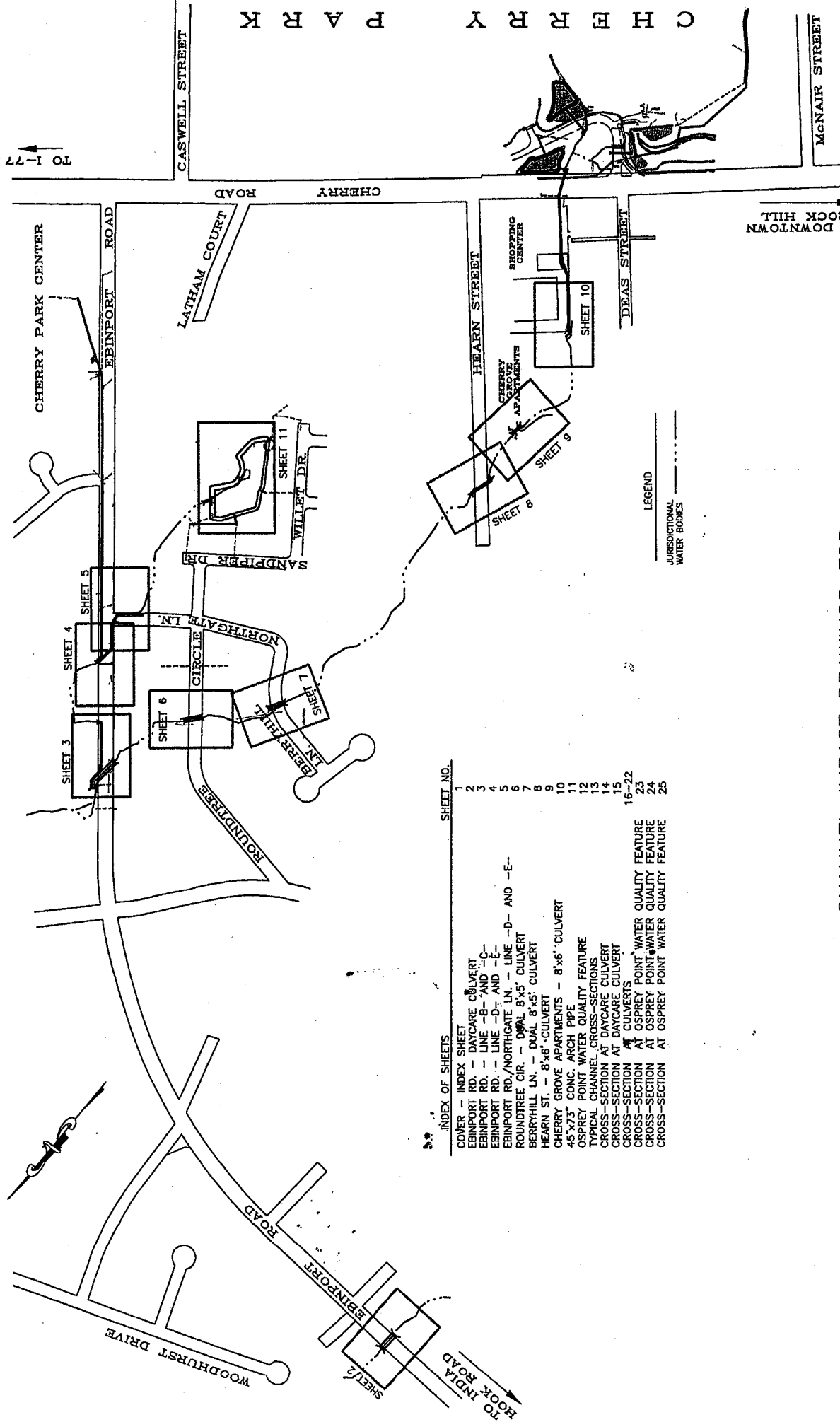


Tracy Hurst
Project Manager
Regulatory Division
U.S. Army Corps of Engineers



PROJECT TITLE: EBINPORT ROAD PROJECT
APPLICANT: CITY OF ROCK HILL
LOCATION: YORK COUNTY, SC
DATE: AUGUST 29, 2002
FILE: P/N #2002-1U-472

NOV -1 2002



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CHANNEL IMPACT DRAWINGS FOR EBINGER ROAD PROJ

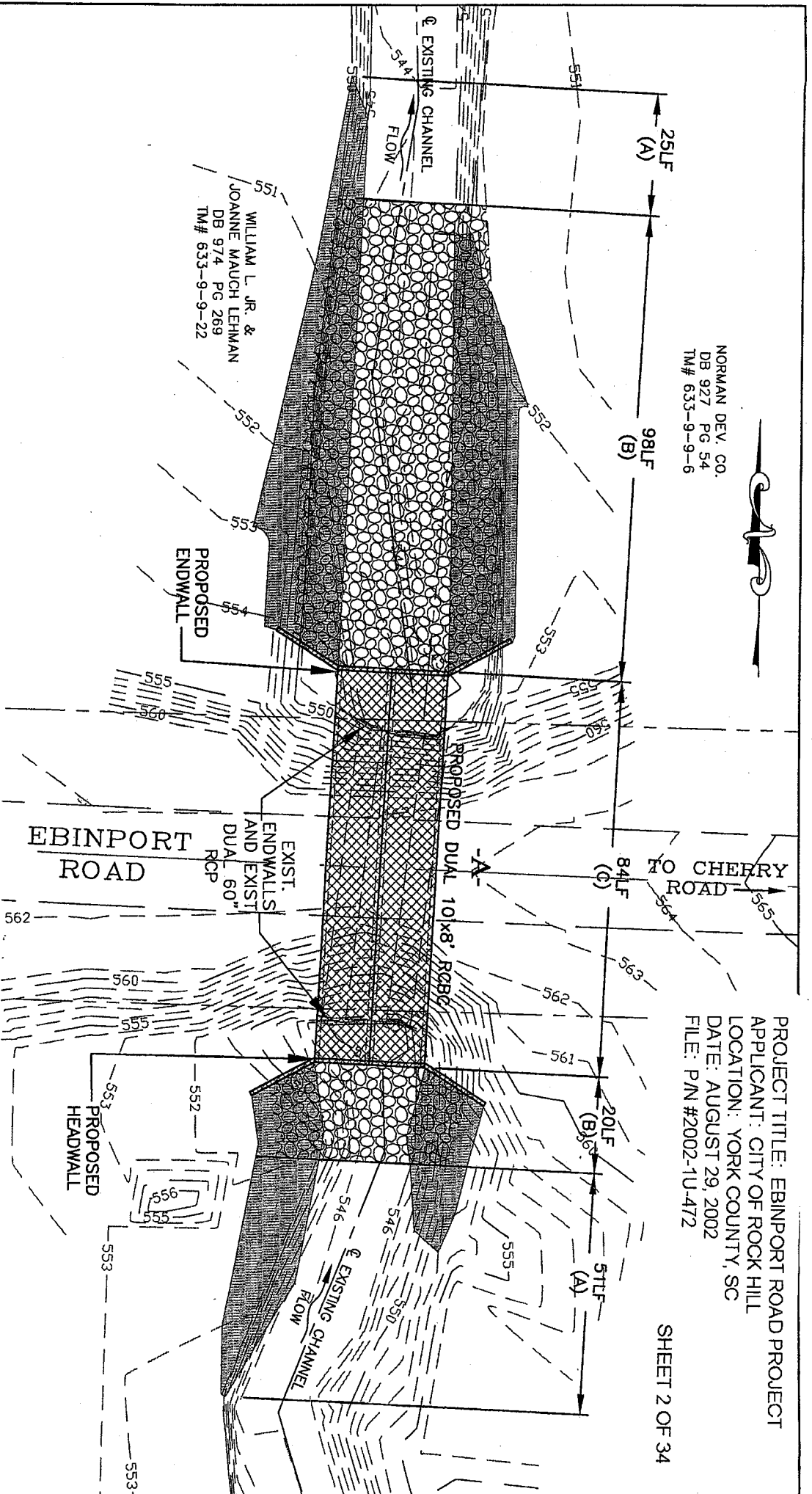
PROJECT TITLE: EBINGER ROAD PROJECT
APPLICANT: CITY OF ROCK HILL
LOCATION: YORK COUNTY, SC
DATE: AUGUST 29, 2002
FILE: P/N #2002-1U-472

YORK COUNTY, SOUTH CAROLINA
AUGUST 29, 2002

NORMAN DEV. CO.
DB 927 PG. 54
TM# 633-9-9-6

PROJECT TITLE: EBINPORT ROAD PROJECT
APPLICANT: CITY OF ROCK HILL
LOCATION: YORK COUNTY, SC
DATE: AUGUST 29, 2002
FILE: P/N #2002-1U-472

SHEET 2 OF 34



LEGEND

- BANK STABILIZATION
- RIPRAP APRONS
- STRUCTURE

- A. BANK STABILIZATION & CHANNEL WIDENING
- B. BANK STABILIZATION & CHANNEL WIDENING AND RIPRAP
- C. PIPE/CULVERT

SEE SHEETS 13 AND 14
FOR CROSS-SECTIONS
DOWNSTREAM AND
UPSTREAM OF THE
DAYCARE CULVERT.

0 30' 60'
HORIZONTAL SCALE: 1" = 30'

EBINPORT ROAD PROJECT ROCK HILL, SOUTH CAROLINA	
IMPACT LOCATION EBINPORT ROAD DAYCARE CULVERT	
ARMSTRONG GLEN, PC 9741-F SOUTHERN PINE BOULEVARD PO Box 7328 28241 Charlotte, NC 28241 Phone: 704-528-0345	SCALE: 1" = 30' DATE: 8-29-02 JOB NO.: 20019 SHEET COMP. FILE

N/F
SALUDA CENTER, INC.
DB 301 PG 348
TM# 634-9-12-4
PB 26 PG 139

N/F
JOHN J. LEVINSKAS
RB 866 PG 349
TM# 634-9-2-3
PB 117 PG 721

N/F
RAUL A. & VIRGINIA R
RB 622 PG 18
TM# 634-9-2-2

PROJECT TITLE: EBINPORT ROAD PROJECT
APPLICANT: CITY OF ROCK HILL
LOCATION: YORK COUNTY, SC
DATE: AUGUST 29, 2002
FILE: P/N #2002-1U-472

SHEET 3 OF 34

N/F
RICHARD L. & MARIE G. BICKEL
RB 73 PG 275
TM# 632-2-3-3
PB 26 PG 139

N/F
ALICE L. LOVE
RB 1044 PG 289
TM# 632-2-3-2
PB 25 PG 97

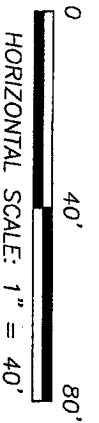
SEE SHEET 15 FOR
DOWNSTREAM
CROSS-SECTIONS.
SEE SHEET 16 FOR
UPSTREAM
CROSS-SECTIONS.

N/F
SALUDA CENTER, INC.
DB 301 PG 348
TM# 632-2-3-1

N/F
SALUDA CENTER, INC.
DB 301 PG 348
TM# 632-2-2-5

- LEGEND
- BANK STABILIZATION
 - RIPRAP APRONS
 - STRUCTURE

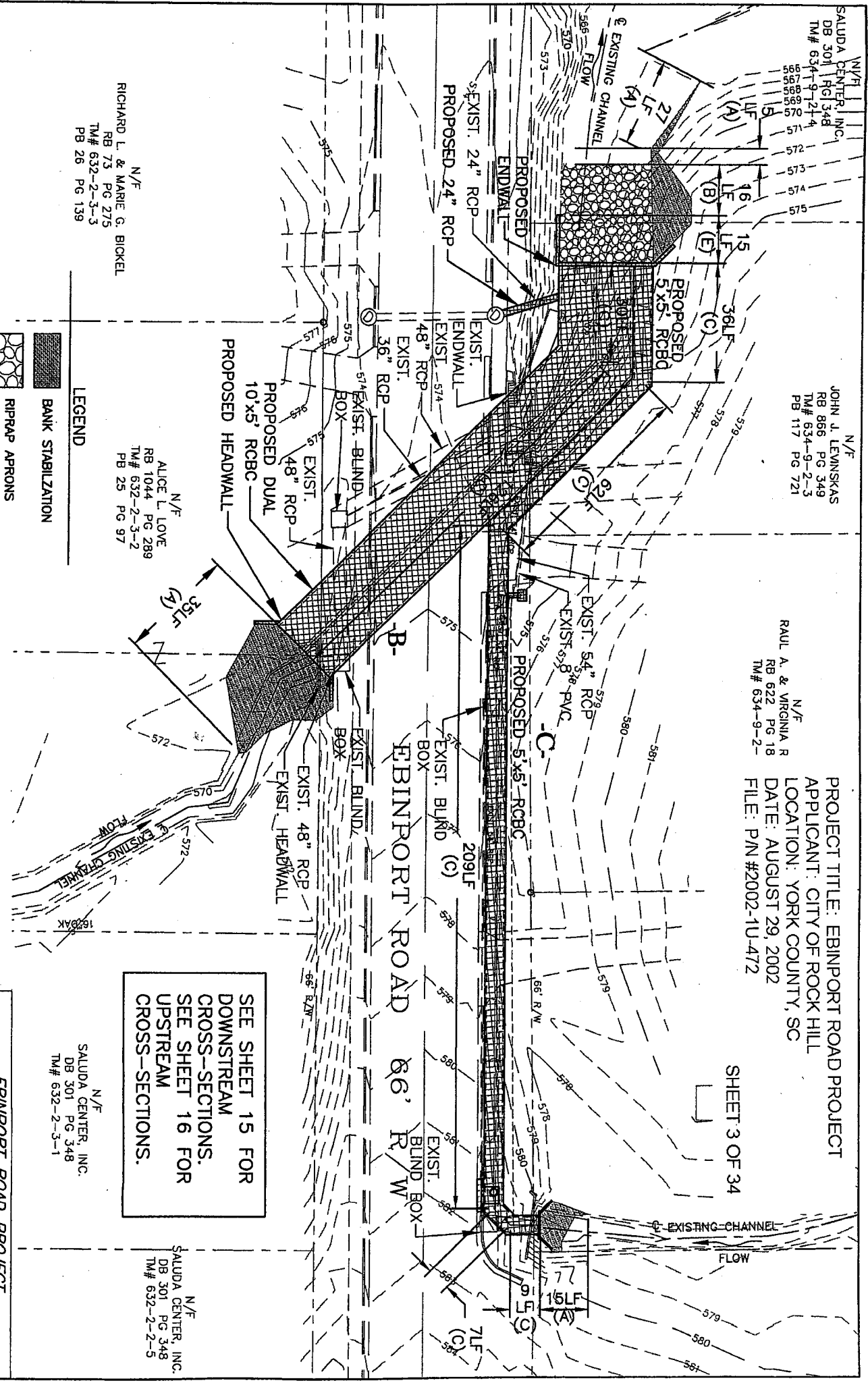
- A. BANK STABILIZATION & CHANNEL WIDENING AND RIPRAP
- B. BANK STABILIZATION & CHANNEL WIDENING
- C. PIPE/CULVERT
- D. RETAINING WALL, BANK STABILIZATION & CHANNEL WIDENING
- E. AND RIPRAP



EBINPORT ROAD PROJECT
IMPACT LOCATION
ROCK HILL, SOUTH CAROLINA
EBINPORT ROAD

ARMSTRONG GLEN, PC
9741-F SOUTHERN PINE BOULEVARD
PO Box 7326
Charlotte, NC 28241
Phone: 704-529-0345

SCALE: 1" = 40'
DATE: 8-28-02
JOB NO.: 20019
SHEET: 25
CONR. FILE:



PROJECT TITLE: EBINPORT ROAD PROJECT
APPLICANT: CITY OF ROCK HILL
LOCATION: YORK COUNTY, SC
DATE: AUGUST 29, 2002
FILE: P/N #2002-1U-472

DAVINC
& DELOI
RB 193
TM# 6
PB 134 PG 63

N/F
SALUDA CENTER, INC.
DB 301 PG 348
TM# 634-9-3-2

N/F
LINDA A. MUEGEL
RB 2042 PG 260
TM# 634-9-3-3
PB A-292 PG 8

N/F
RONALD R. & PEGGY W. HUNDLEY
RB 1337 PG 243
TM# 632-2-2-3
PB 25 PG 97

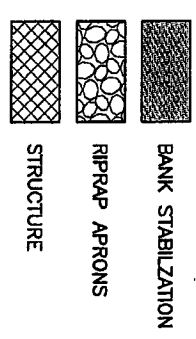
N/F
THOMAS E. DUNCAN
RB 2331 PG 190
TM# 632-2-2-2
PB 25 PG 97

N/F
FOWLER JOYCE ANN
DB 1074 PG 109
TM# 632-2-2-1
PB: 133 P 547

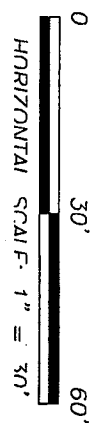
SEE SHEET 17 FOR
DOWNSTREAM
CROSS-SECTION.

MATCHLINE
SHEET 5

- A. BANK STABILIZATION & CHANNEL WIDENING
- B. BANK STABILIZATION & CHANNEL WIDENING AND RIPRAP
- C. PIPE/CULVERT
- D. RETAINING WALL, BANK STABILIZATION & CHANNEL WIDENING
- E. RETAINING WALL, BANK STABILIZATION & CHANNEL WIDENING AND RIPRAP
- F. RIPRAP

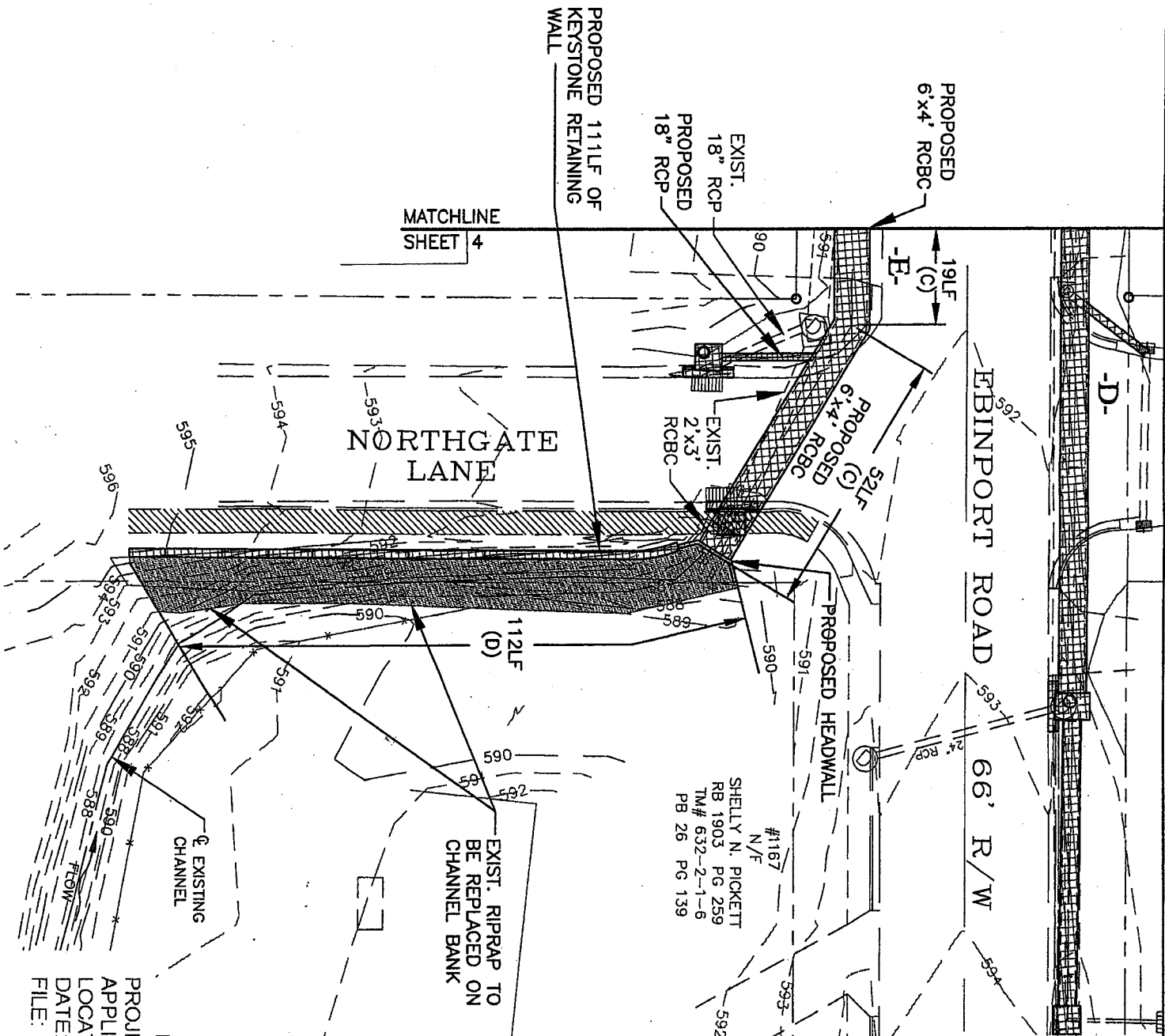


EBINPORT ROAD PROJECT
ROCK HILL, SOUTH CAROLINA
IMPACT LOCATION
EBINPORT ROAD



ARMSTRONG GLEN, PC
9741-F SOUTHERN PINE BOULEVARD
PO Box 7326
Charlotte, NC 28241
Phone: 770-420-0145

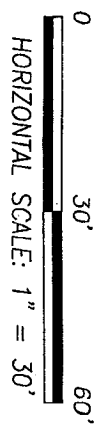
SCALE: 1" = 30'
DATE: 8-29-02
JOB NO.: 200119
SHEET



SEE SHEET 17 FOR
UPSTREAM CROSS-SECTION.
SEE SHEET 12 FOR
TYPICAL CHANNEL
CROSS-SECTION AT
NORTHGATE LANE.

LEGEND

- A. BANK STABILIZATION & CHANNEL WIDENING
- B. BANK STABILIZATION & CHANNEL WIDENING AND RIPRAP
- C. PIPE/CULVERT
- D. RETAINING WALL, BANK STABILIZATION & CHANNEL WIDENING
- E. RETAINING WALL, BANK STABILIZATION & CHANNEL WIDENING AND RIPRAP
- F. RIPRAP

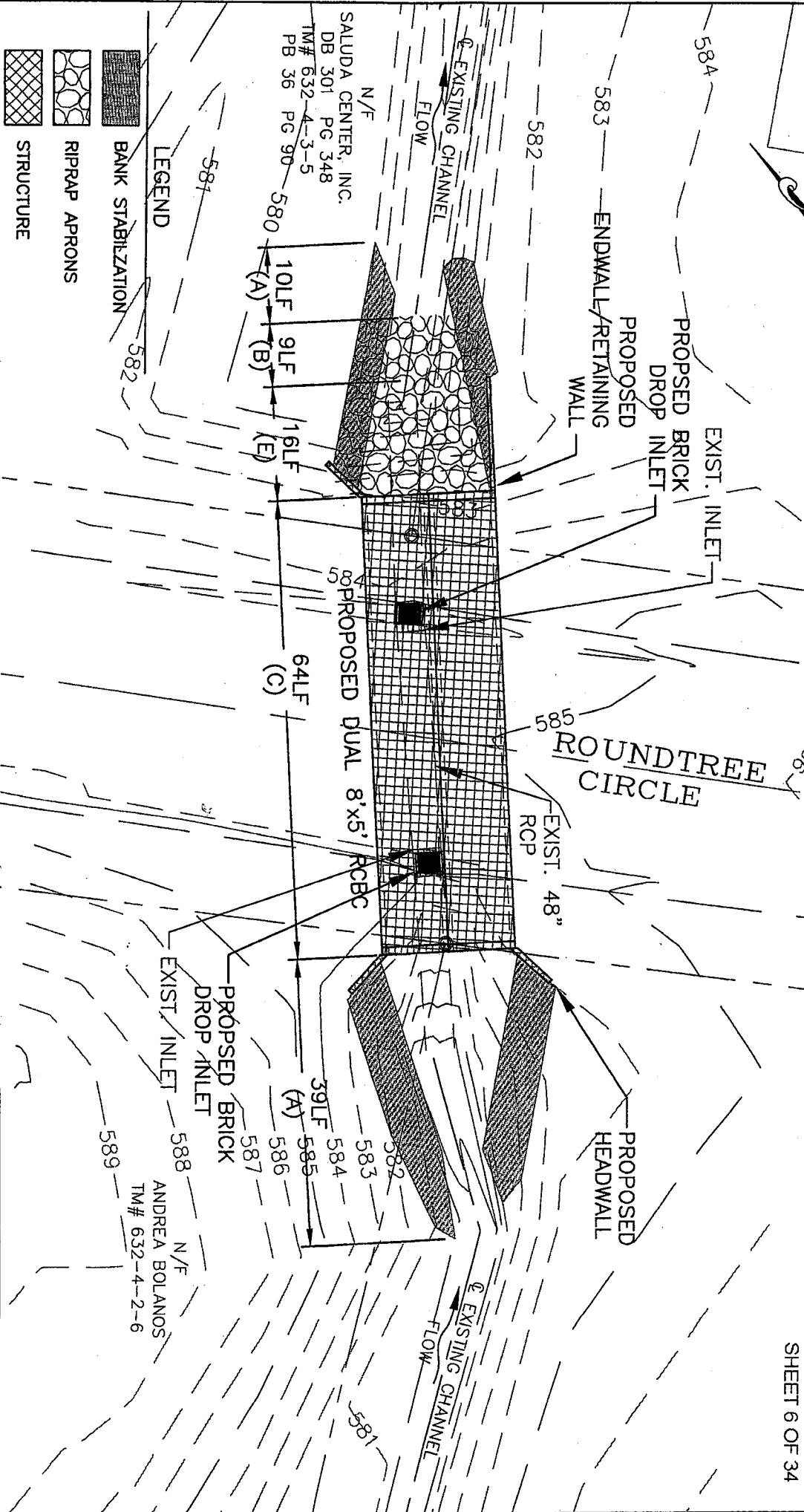


PROJECT TITLE: EBINEPORT ROAD PROJECT
APPLICANT: CITY OF ROCK HILL
LOCATION: YORK COUNTY, SC
DATE: AUGUST 29, 2002
FILE: P/N #2002-1U-472

N/F
SHEPHERD & BLAIR TATE
RB 1635 PG 50
TM# 632-4-3-4

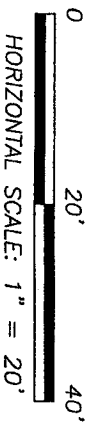
PROJECT TITLE: EBINPORT ROAD PROJECT
APPLICANT: CITY OF ROCK HILL
LOCATION: YORK COUNTY, SC
DATE: AUGUST 29, 2002
FILE: PN#2002-1U-472

SHEET 6 OF 34



- LEGEND
- BANK STABILIZATION
 - RIPRAP APRONS
 - STRUCTURE
 - A. BANK STABILIZATION & CHANNEL WIDENING AND RIPRAP
 - B. BANK STABILIZATION & CHANNEL WIDENING
 - C. PIPE/CULVERT
 - D. RETAINING WALL, BANK STABILIZATION & CHANNEL WIDENING
 - E. RETAINING WALL, BANK STABILIZATION & CHANNEL WIDENING AND RIPRAP

SEE SHEET 18 FOR
DOWNSTREAM AND
UPSTREAM
CROSS-SECTIONS.



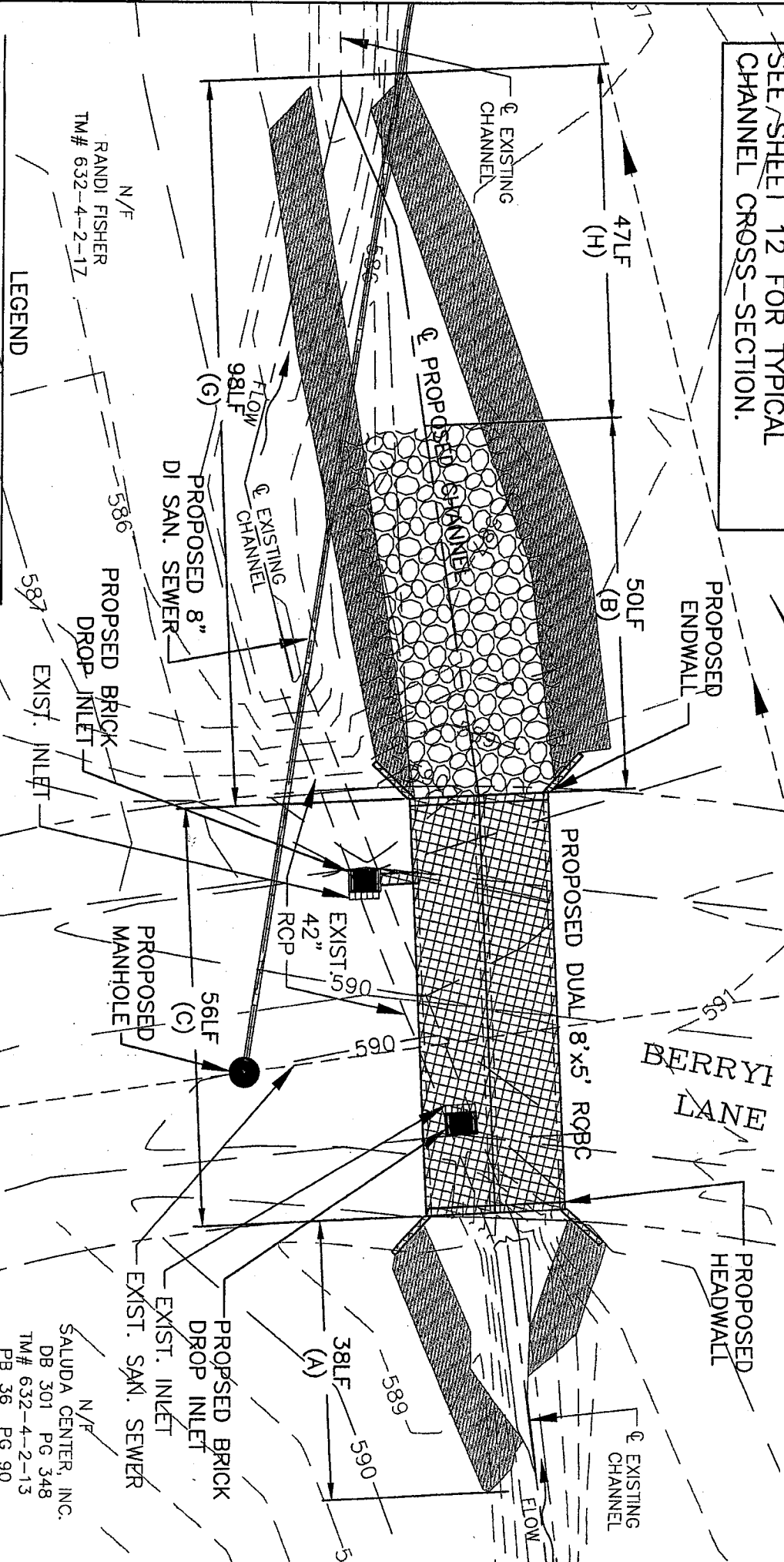
EBINPORT ROAD PROJECT ROCK HILL, SOUTH CAROLINA	
IMPACT LOCATION ROUNDTREE CIRCLE	
ARMSTRONG GLEN, PC 9741-F SOUTHERN PINE BOULEVARD PO Box 7326 Charlotte, NC 28241 Phone: 704-529-0345	SCALE: 1" = 20' DATE: 8-29-02 JOB NO.: 20019 SHEET: 6 OF 34 CONTR. FILE:

SEE SHEET 19 FOR DOWNSTREAM
CROSS-SECTION AND SHEET 18
FOR UPSTREAM CROSS-SECTION.
SEE SHEET 12 FOR TYPICAL
CHANNEL CROSS-SECTION.

N/F
DONALD B. COLLINS
TM# 632-4-2-16

PROJECT TITLE: EBINPORT ROAD PROJECT
APPLICANT: CITY OF ROCK HILL
LOCATION: YORK COUNTY, SC
DATE: AUGUST 29, 2002
FILE: P/N#2002-1U-472

SHEET 7 OF 34

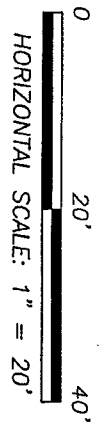


N/F
RANDI FISHER
TM# 632-4-2-17

N/F
SALUDA CENTER, INC.
DB 301 PG 348
TM# 632-4-2-13
PB 36 PG 90

LEGEND

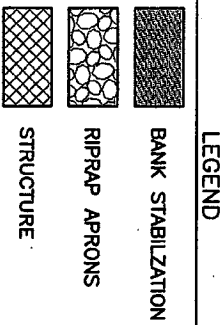
- A. BANK STABILIZATION & CHANNEL WIDENING AND RIPRAP
- B. BANK STABILIZATION & CHANNEL WIDENING AND RIPRAP
- C. PIPE/CULVERT
- D. RETAINING WALL, BANK STABILIZATION & CHANNEL WIDENING
- E. RETAINING WALL, BANK STABILIZATION & CHANNEL WIDENING AND RIPRAP
- F. RIPRAP
- G. STREAM RELOCATION
- H. BANK STABILIZATION & SANITARY SEWER



EBINPORT ROAD PROJECT ROCK HILL, SOUTH CAROLINA IMPACT LOCATION BERRYHILL LANE	
ARMSTRONG GLEN, PC 9741-F SOUTHERN PINE BOULEVARD PO Box 7326 Charlotte, NC 28221 Phone: 704-528-0345	SCALE: 1" = 20' DATE: 8-29-02 JOB NO.: 20019 SHEET: 7 OF 34 COMPT. FILE:

MATCHLINE
SHEET 8

N/F
CHERRY GROVE APARTMENTS
DB 409 PG 528
TM# 632-3-11-2



- A. BANK STABILIZATION & CHANNEL WIDENING
- B. BANK STABILIZATION & CHANNEL WIDENING AND RIPRAP
- C. PIPE/CULVERT
- D. RETAINING WALL, BANK STABILIZATION & CHANNEL WIDENING
- E. RETAINING WALL, BANK STABILIZATION & CHANNEL WIDENING AND RIPRAP
- F. RIPRAP
- G. STREAM RELOCATION
- H. BANK STABILIZATION & SANITARY SEWER

SEE SHEET 21 FOR DOWNSTREAM AND UPSTREAM CROSS-SECTIONS. SEE SHEET 12 FOR TYPICAL DOWNSTREAM CHANNEL CROSS-SECTION.

PROPOSED HEADWALL
8'x6' RCBC
EXIST. TRIPLE 2'x3' CMP W/WINGWALLS.

PROJECT TITLE: EBINPORT ROAD PROJECT
APPLICANT: CITY OF ROCK HILL
LOCATION: YORK COUNTY, SC
DATE: AUGUST 29, 2002
FILE: P/N #2002-1U-472

SHEET 9 OF 34

0 30' 60'
HORIZONTAL SCALE: 1" = 30'

EBINPORT ROAD PROJECT
ROCK HILL, SOUTH CAROLINA

IMPACT LOCATION
CHERRY GROVE APARTMENTS

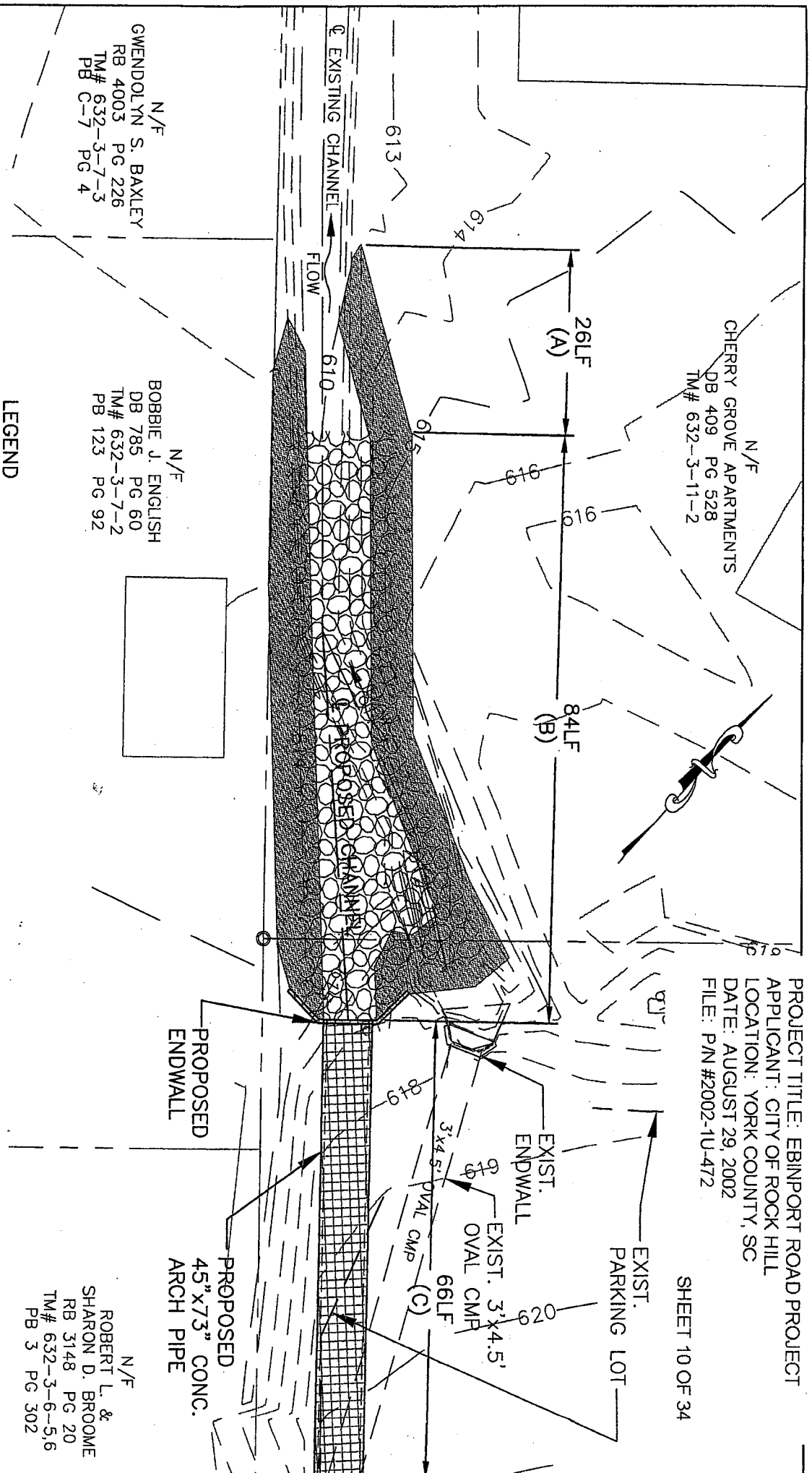
ARMSTRONG GLEN, PC
9741-F SOUTHERN PINE BOULEVARD
PO Box 7329
Charlotte, NC 28241
Phone: 704-528-0345

SCALE	1" = 30'
DATE	8-29-02
JOB NO.	20019
SHEET	
COMPR. FILE	

N/F
CHERRY GROVE APARTMENTS
DB 409 PG 528
TM# 632-3-11-2

PROJECT TITLE: EBINPORT ROAD PROJECT
APPLICANT: CITY OF ROCK HILL
LOCATION: YORK COUNTY, SC
DATE: AUGUST 29, 2002
FILE: P/N #2002-1U-472

SHEET 10 OF 34



N/F
GWENDOLYN S. BAXLEY
RB 4003 PG 226
TM# 632-3-7-3
PB C-7 PG 4

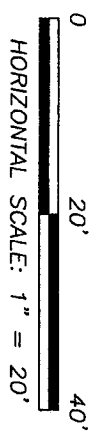
N/F
BOBBIE J. ENGLISH
DB 785 PG 60
TM# 632-3-7-2
PB 123 PG 92

LEGEND

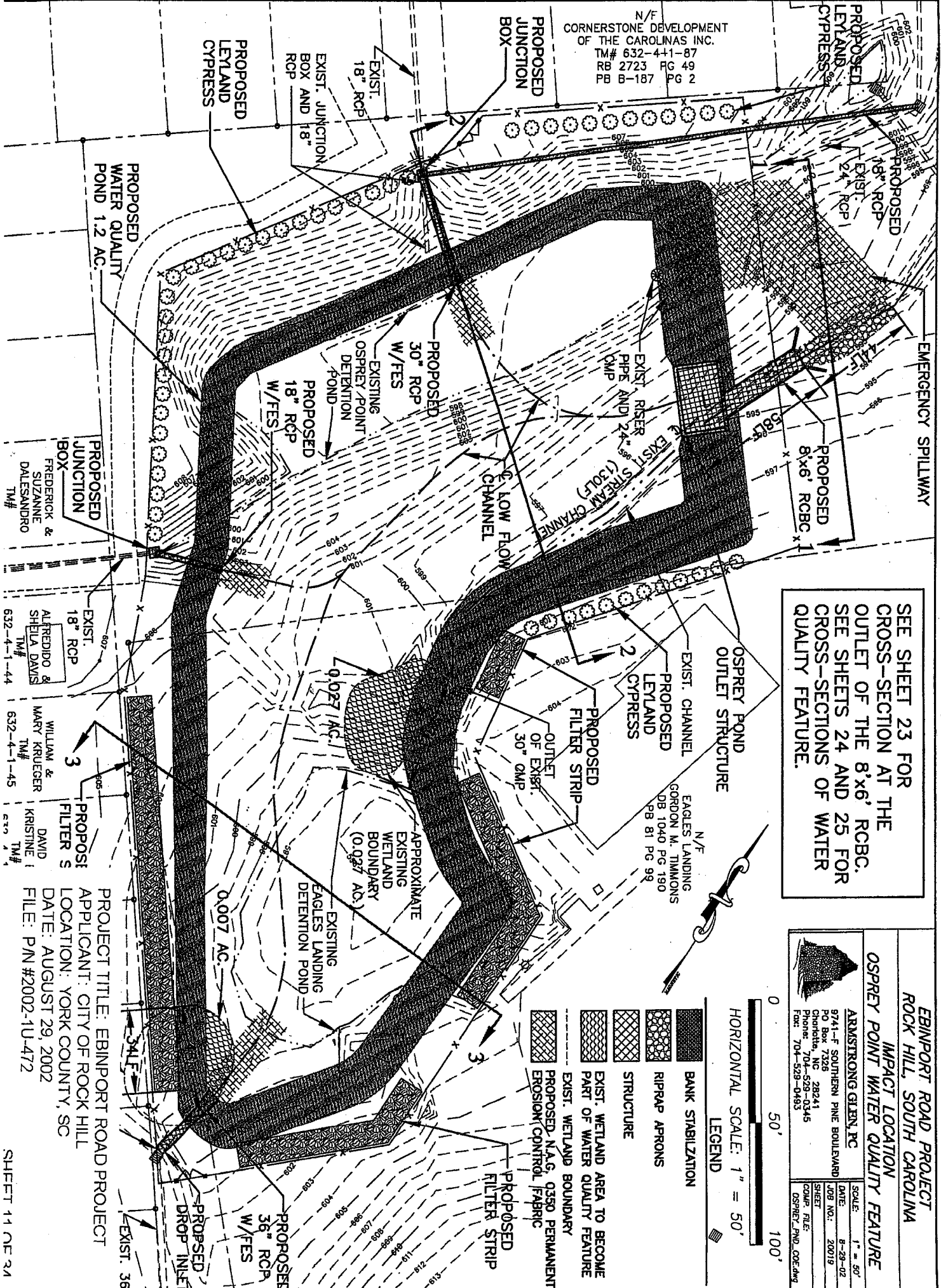
- BANK STABILIZATION
- RIPRAP APRONS
- STRUCTURE

- A. BANK STABILIZATION & CHANNEL WIDENING
- B. BANK STABILIZATION & CHANNEL WIDENING AND RIPRAP
- C. PIPE/CULVERT

SEE SHEET 22 FOR
DOWNSTREAM
CROSS-SECTION.



EBINPORT ROAD PROJECT ROCK HILL, SOUTH CAROLINA	
IMPACT LOCATION	
45"x73" CONC. ARCH PIPE	
ARMSTRONG GLEN, PC	SCALE: 1" = 20'
9741-F SOUTHERN PINE BOULEVARD	DATE: 8-29-02
PO Box 7326 28241	JOB NO.: 20019
Sherrifette, NC	SHEET
Phone: 704-529-0545	TM# File #



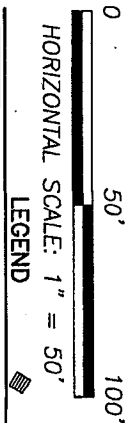
N/F
 CORNERSTONE DEVELOPMENT
 OF THE CAROLINAS INC.
 TM# 632-4-1-87
 RB 2723 PG 49
 PB 8-187 PG 2

SEE SHEET 23 FOR
 CROSS-SECTION AT THE
 OUTLET OF THE 8'x6' RCBC.
 SEE SHEETS 24 AND 25 FOR
 CROSS-SECTIONS OF WATER
 QUALITY FEATURE.

EBINPORT ROAD PROJECT
 ROCK HILL, SOUTH CAROLINA
IMPACT LOCATION
OSPREY POINT WATER QUALITY FEATURE

ARMSTRONG GLEN PC
 9741-F SOUTHERN PINE BOULEVARD
 PO BOX 7326 28241
 Charlotte, NC 28241
 Phone: 704-529-0145
 Fax: 704-529-0183

SCALE: 1" = 50'
 DATE: 8-29-02
 JOB NO.: 20019
 SHEET
 COMP. FILE:
 OSPREY_PWD_COE.dwg



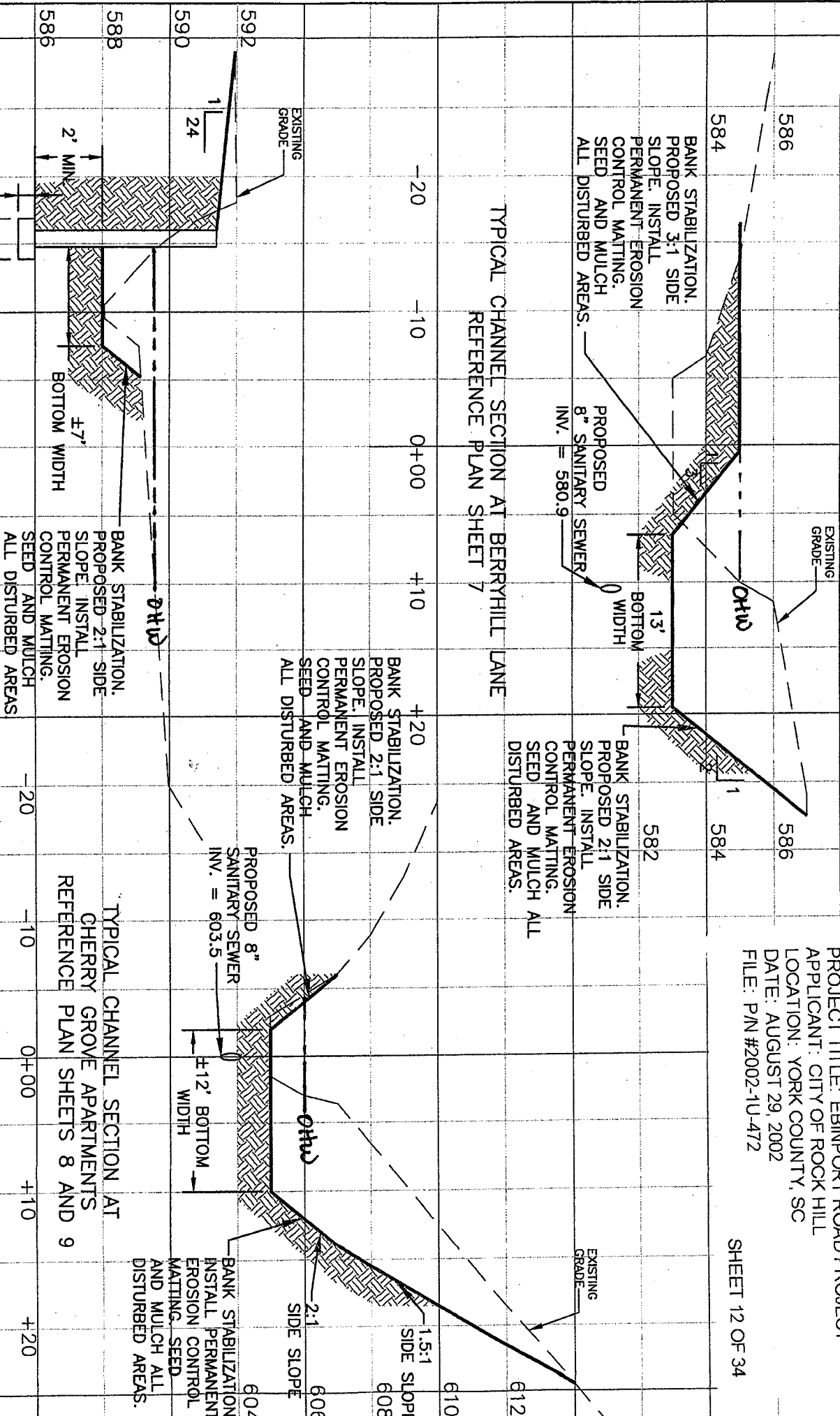
- LEGEND**
- BANK STABILIZATION
 - RIPRAP APRONS
 - STRUCTURE
 - EXIST. WETLAND AREA TO BECOME PART OF WATER QUALITY FEATURE
 - EXIST. WETLAND BOUNDARY
 - PROPOSED N.A.G. Q350 PERMANENT EROSION CONTROL FABRIC

PROJECT TITLE: EBINPORT ROAD PROJECT
 APPLICANT: CITY OF ROCK HILL
 LOCATION: YORK COUNTY, SC
 DATE: AUGUST 29, 2002
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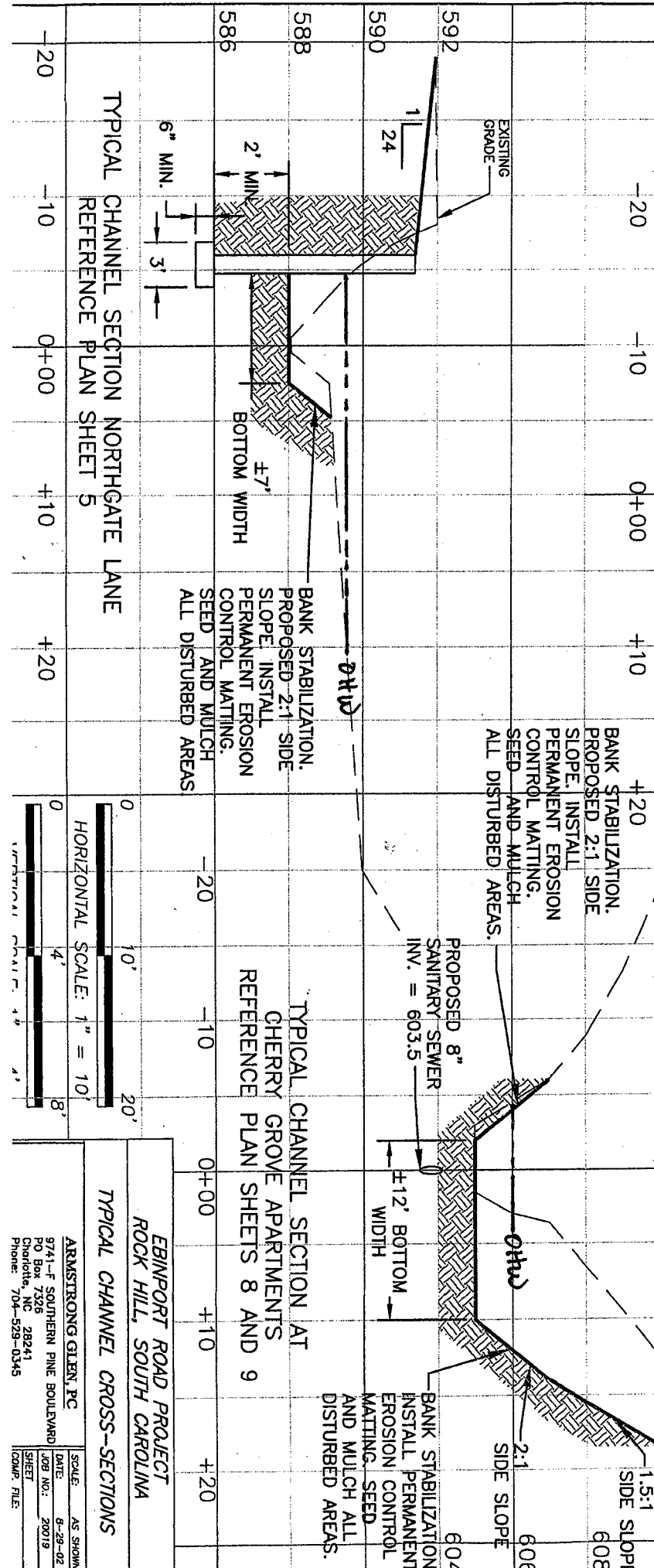
PROJECT TITLE: EBINPORT ROAD PROJECT
 APPLICANT: CITY OF ROCK HILL
 LOCATION: YORK COUNTY, SC
 DATE: AUGUST 29, 2002
 FILE: PN #2002-1U-472

SHEET 12 OF 34

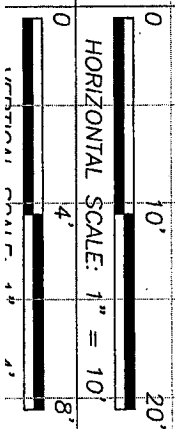
TYPICAL CHANNEL SECTION AT BERRYHILL LANE
 REFERENCE PLAN SHEET 7



TYPICAL CHANNEL SECTION NORTHGATE LANE
 REFERENCE PLAN SHEET 5



TYPICAL CHANNEL SECTION AT
 CHERRY GROVE APARTMENTS
 REFERENCE PLAN SHEETS 8 AND 9



EBINPORT ROAD PROJECT
 ROCK HILL, SOUTH CAROLINA
 TYPICAL CHANNEL CROSS-SECTIONS

ARMSTRONG GLEN, PC
 9741-F SOUTHERN PINE BOULEVARD
 P.O. BOX 7236
 CHARLOTTE, NC 28241
 PHONE: 704-529-0345

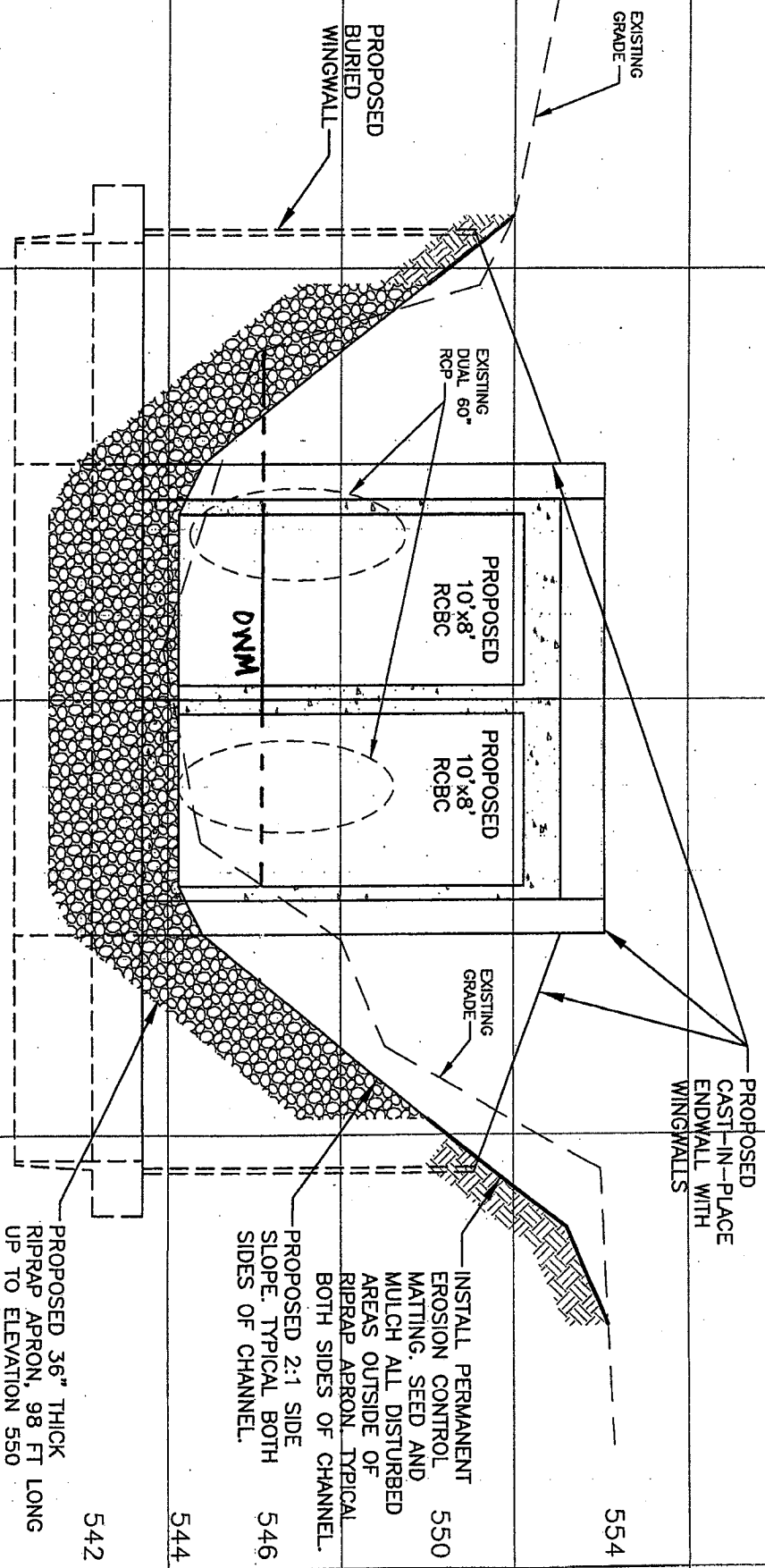
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 DATE: 8-29-02
 JOB NO.: 20019
 SHEET

COMPUTED FILE:

EBINPORT RD.

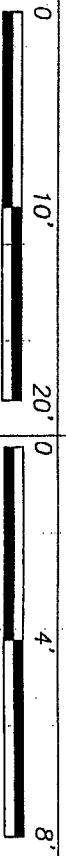
PROJECT TITLE: EBINPORT ROAD PROJECT
APPLICANT: CITY OF ROCK HILL
LOCATION: YORK COUNTY, SC
DATE: AUGUST 29, 2002
FILE: P/N #2002-1U-472

SHEET 13 OF 34



DUAL 10'x8' DAYCARE CULVERT - DOWNSTREAM

-20 -10 0+00 +10 +20



EBINPORT ROAD PROJECT
ROCK HILL, SOUTH CAROLINA
CROSS-SECTION
DAYCARE CULVERT - DOWNSTREAM

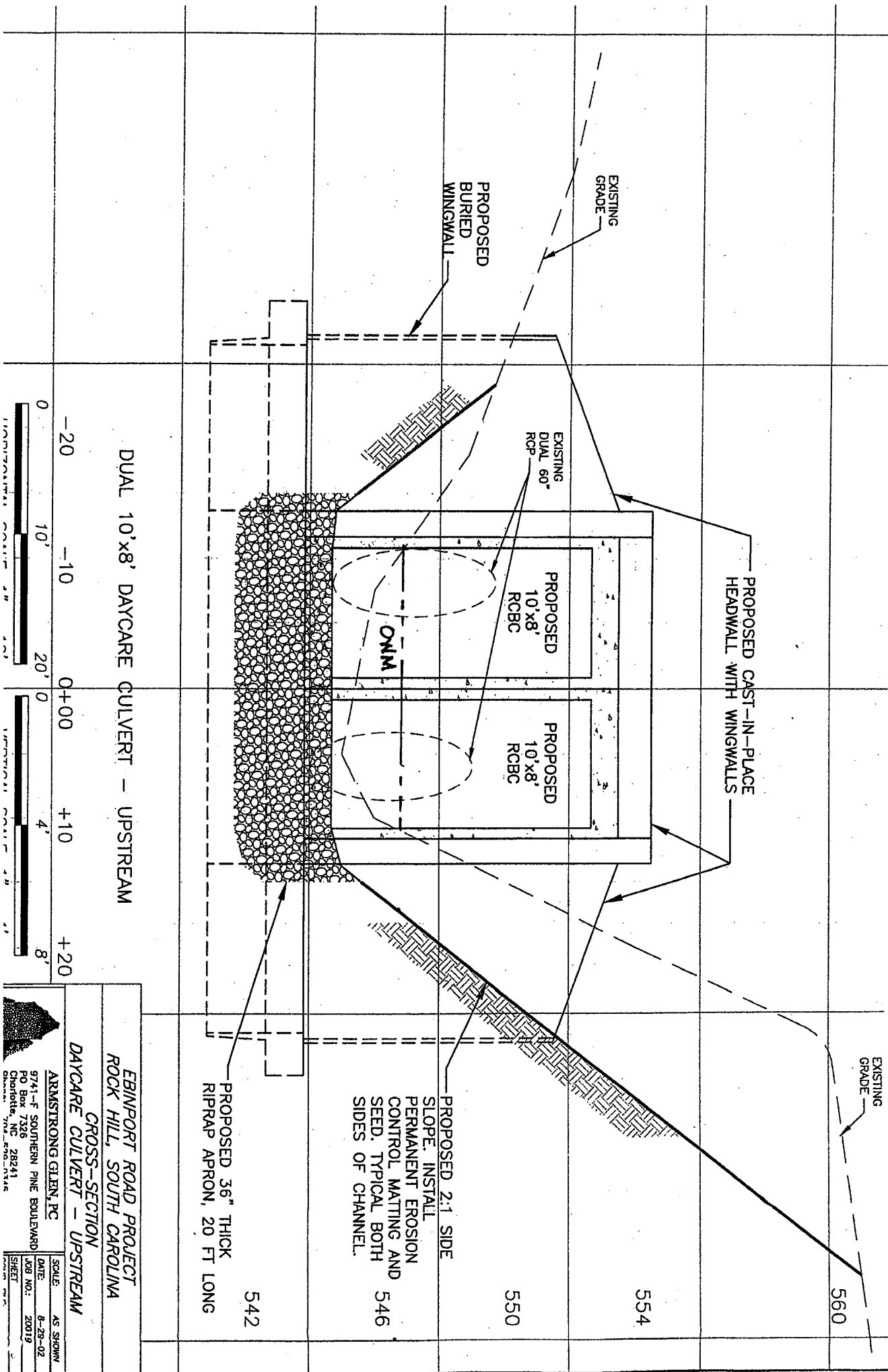
ARMSTRONG GLEN, PC
9741-F SOUTHERN PINE BOULEVARD
PO Box 7328
Charlotte, NC 28241
Phone: 770-502-1745

SCALE	AS SHOWN
DATE	8-29-02
JOB NO.	20019
SHEET	

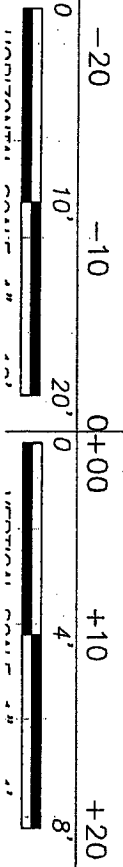
PROJECT TITLE: EBINPORT ROAD PROJECT
 APPLICANT: CITY OF ROCK HILL
 LOCATION: YORK COUNTY, SC
 DATE: AUGUST 29, 2002
 FILE: PN #2002-1U-472

SHEET 14 OF 34

EBINPORT RD.



DUAL 10'x8' DAYCARE CULVERT - UPSTREAM



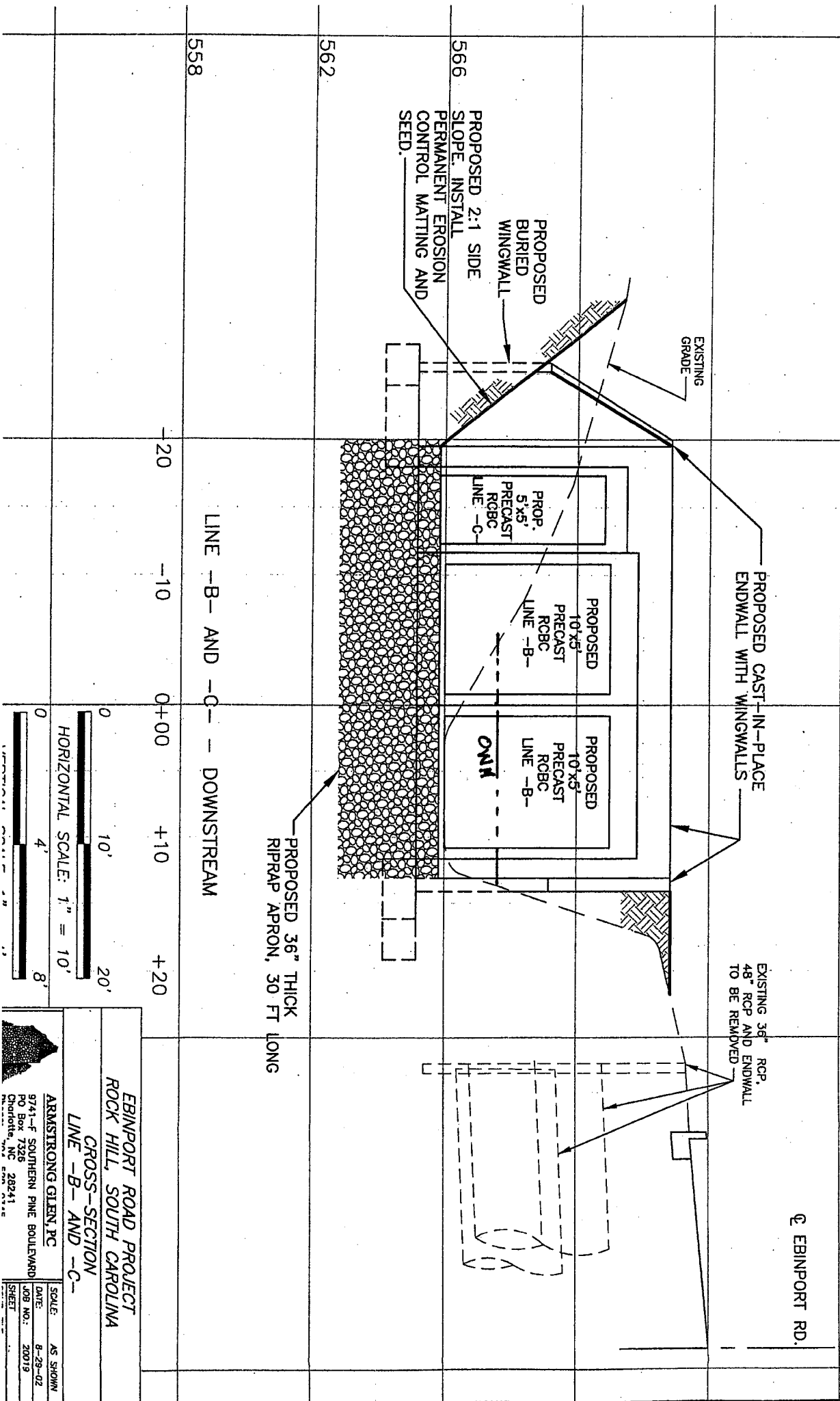
EBINPORT ROAD PROJECT
 ROCK HILL, SOUTH CAROLINA
CROSS-SECTION
 DAYCARE CULVERT - UPSTREAM

ARMSTRONG GLEN, PC
 9741-F SOUTHERN PINE BOULEVARD
 PO Box 7326
 Charlotte, NC 28241
 704-570-1146

SCALE: AS SHOWN
 DATE: 8-29-02
 JOB NO.: 20019
 SHEET

PROJECT TITLE: EBINPORT ROAD PROJECT
 APPLICANT: CITY OF ROCK HILL
 LOCATION: YORK COUNTY, SC
 DATE: AUGUST 29, 2002
 FILE: P/N #2002-1U-472

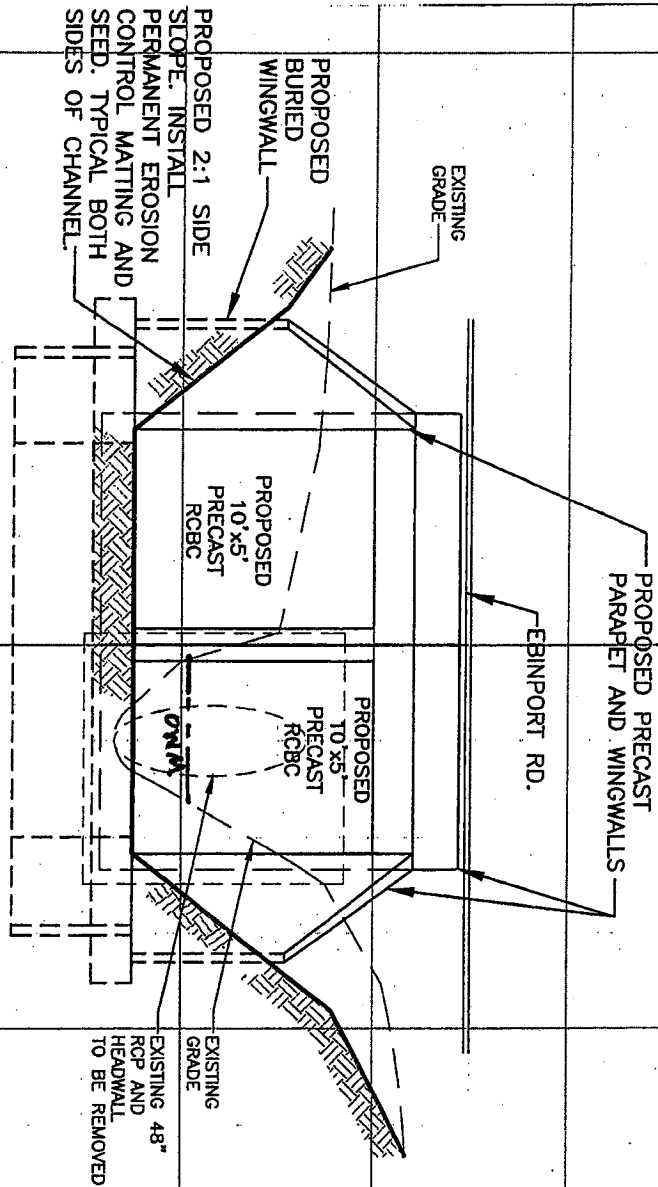
SHEET 15 OF 34



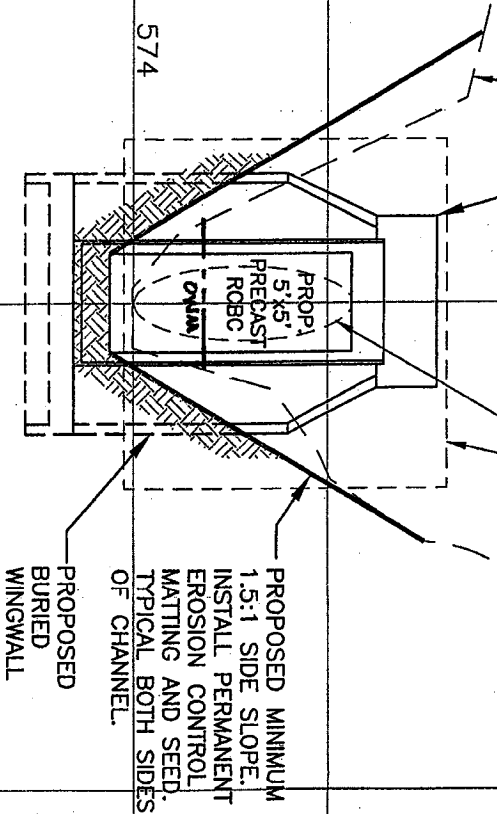
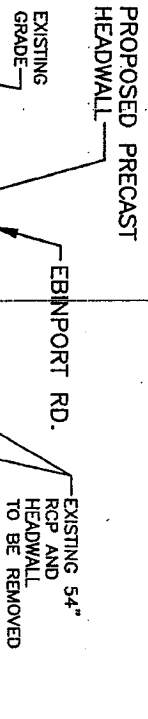
EBINPORT ROAD PROJECT
ROCK HILL, SOUTH CAROLINA
CROSS-SECTION
LINE -B- AND -C-

ARMSTRONG GLEN, PC
 9741-F SOUTHERN PINE BOULEVARD
 PO Box 7326
 Charlotte, NC 28241

SCALE: AS SHOWN
 DATE: 8-29-02
 JOB NO.: 20019
 SHEET



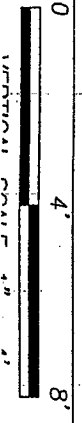
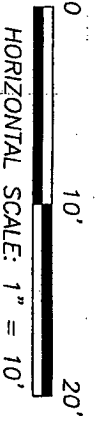
LINE -B- -- UPSTREAM



LINE -C- -- UPSTREAM

PROJECT TITLE: EBINEPORT ROAD PROJECT
 APPLICANT: CITY OF ROCK HILL
 LOCATION: YORK COUNTY, SC
 DATE: AUGUST 29, 2002
 FILE: P/N #2002-1U-472

SHEET 16 OF 34



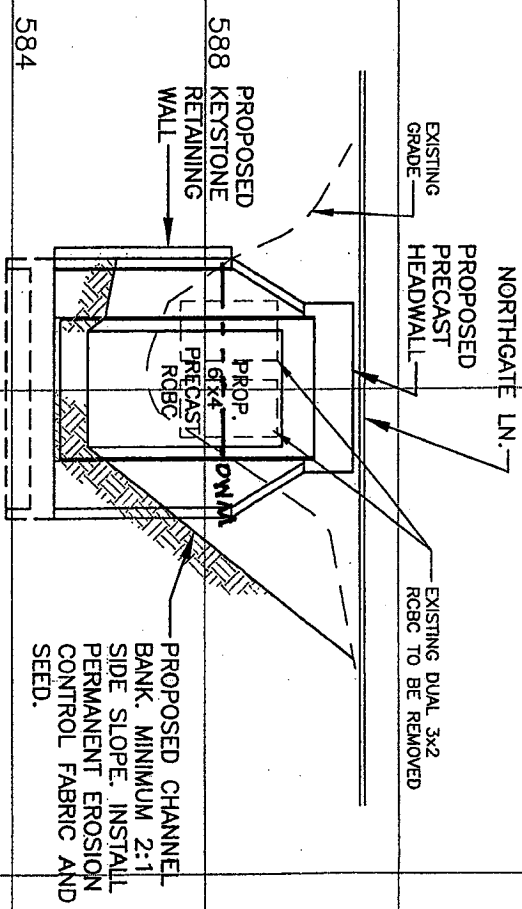
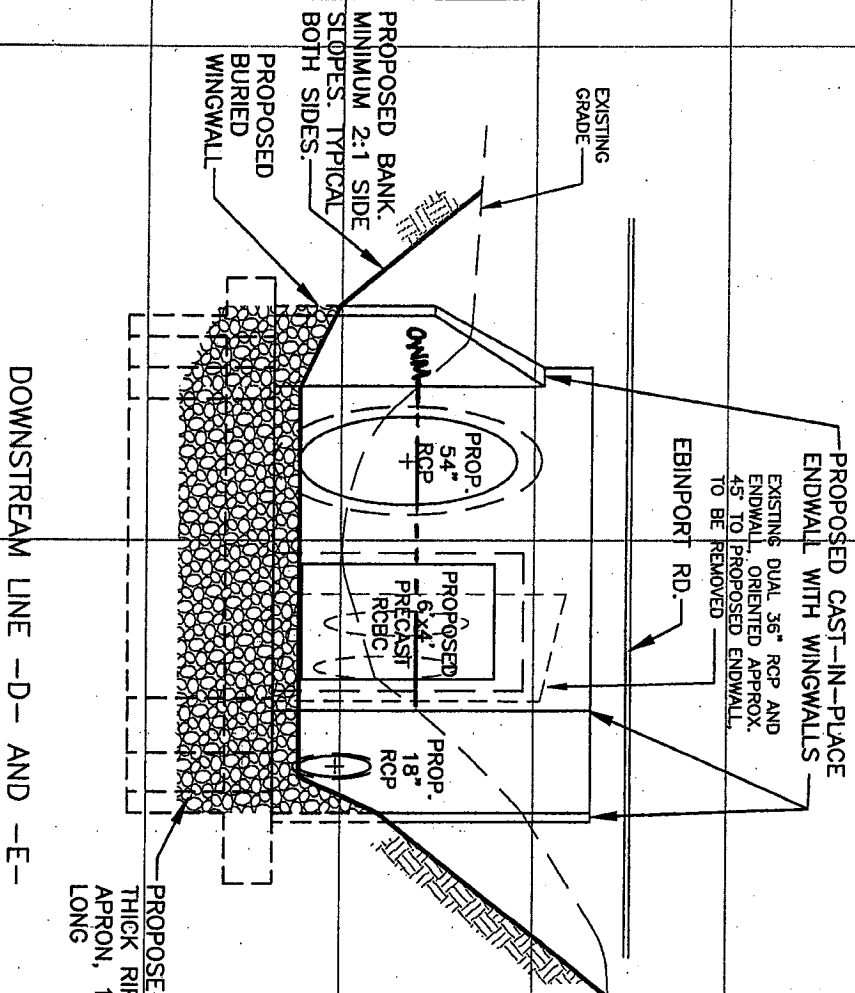
EBINEPORT ROAD PROJECT
 ROCK HILL, SOUTH CAROLINA
 CROSS-SECTIONS
 LINE -B- AND -C-

ARMSTRONG GLEN, PC
 9741-F SOUTHERN PINE BOULEVARD
 PO Box 7326
 Charlotte, NC 28241
 Phone: 704-598-0746

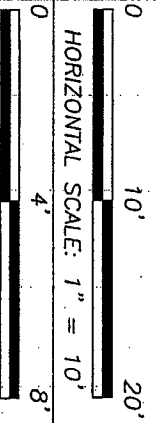
SCALE: AS SHOWN
 DATE: 8-29-02
 JOB NO.: 20019
 SHEET 16 OF 34

PROJECT TITLE: EBINPORT ROAD PROJECT
 APPLICANT: CITY OF ROCK HILL
 LOCATION: YORK COUNTY, SC
 DATE: AUGUST 29, 2002
 FILE: P/N #2002-1U-472

SHEET 17 OF 34



0 -20 -10 0+00 +10 +20



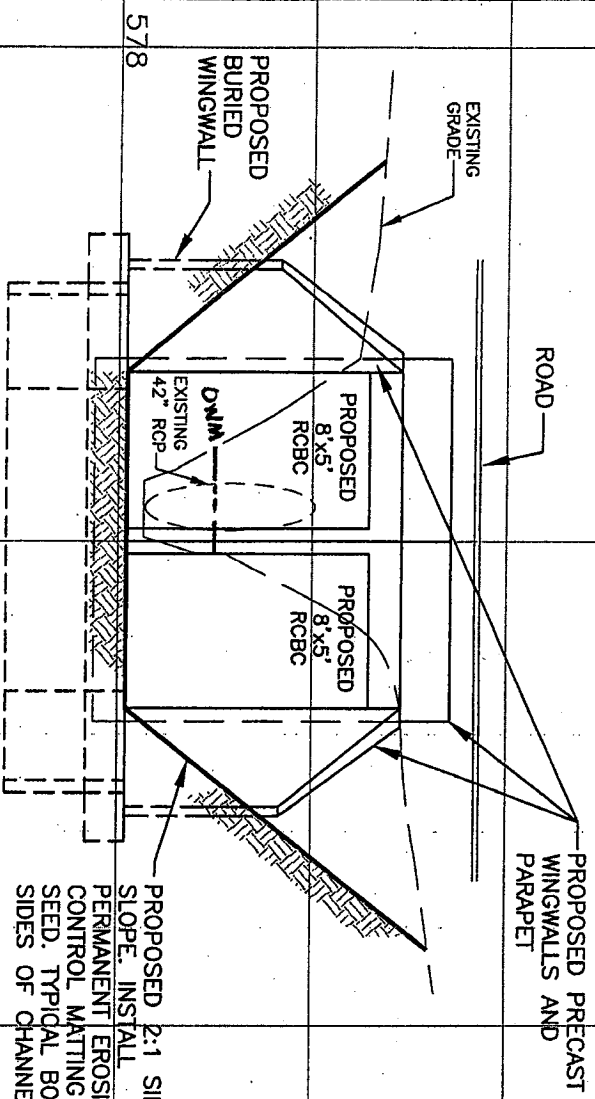
EBINPORT ROAD PROJECT
 ROCK HILL, SOUTH CAROLINA
 CROSS-SECTIONS
 LINE -D- AND -E-

ARMSTRONG GLEN, PC
 9741-F SOUTHERN PINE BOULEVARD
 PO Box 7326
 Charlotte, NC 28241

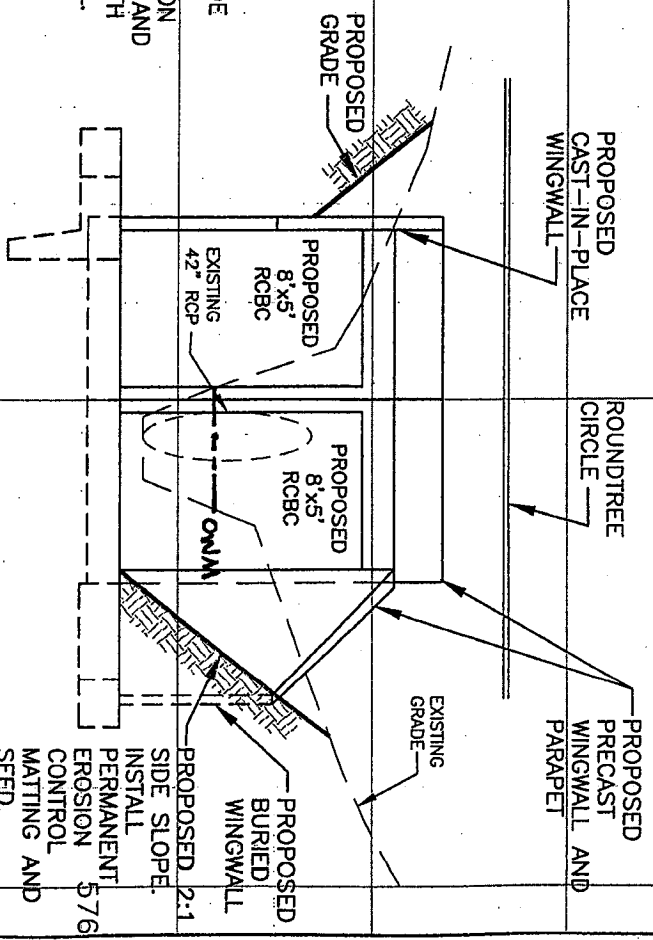
SCALE: AS SHOWN
 DATE: 8-29-02
 JOB NO.: 20019
 SHEET

PROJECT TITLE: EBINPORT ROAD PROJECT
 APPLICANT: CITY OF ROCK HILL
 LOCATION: YORK COUNTY, SC
 DATE: AUGUST 29, 2002
 FILE: PN #2002-1U-472

SHEET 18 OF 34

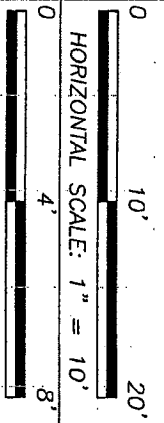


TYPICAL CROSS-SECTION:
 ROUNDTREE CIRCLE CULVERT - UPSTREAM
 BERRYHILL LANE CULVERT - UPSTREAM



ROUNDTREE CIRCLE CULVERT - DOWNSTREAM

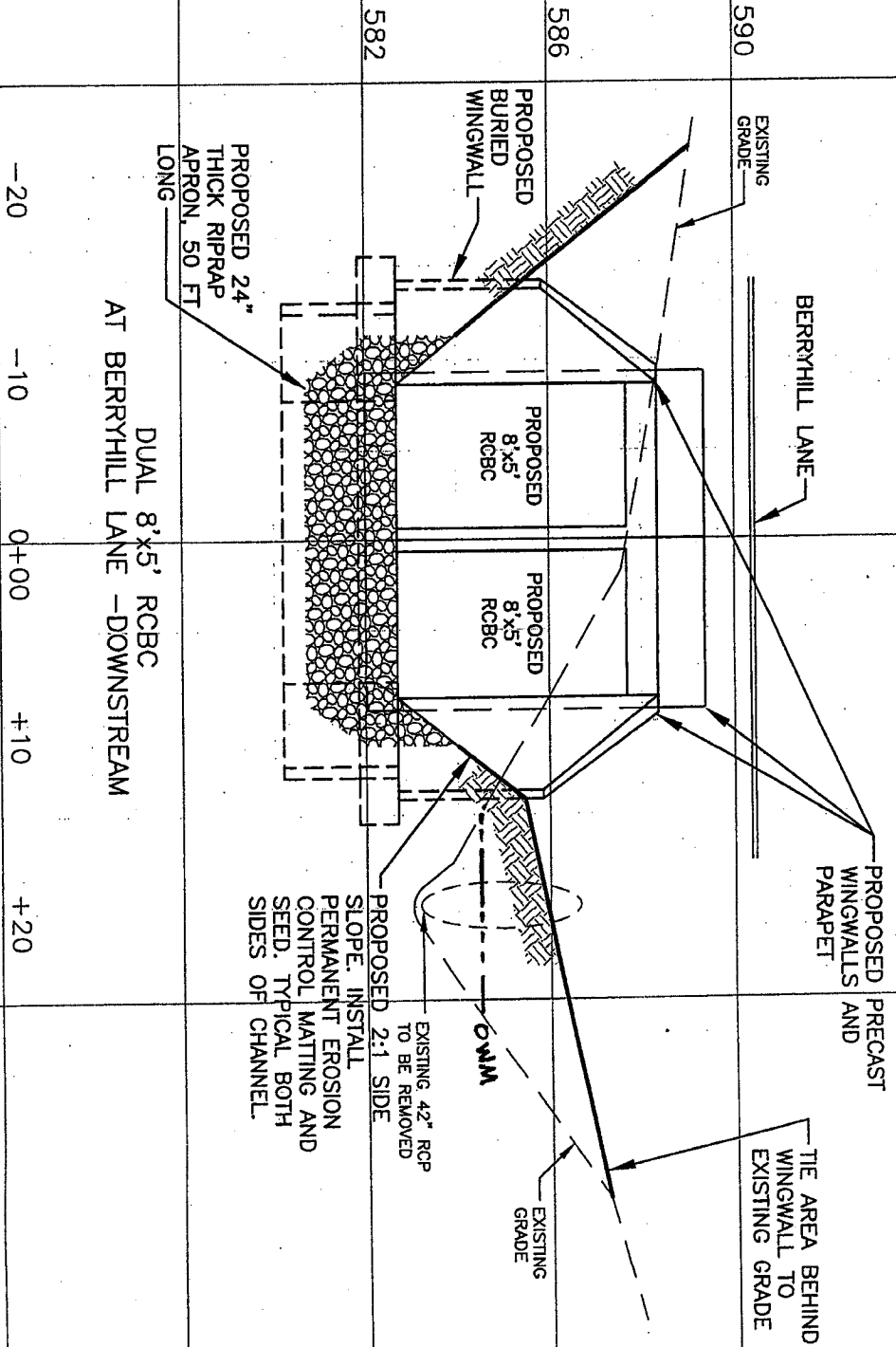
-20 -10 0+00 +10 +20



EBINPORT ROAD PROJECT	
ROCK HILL, SOUTH CAROLINA	
CROSS-SECTIONS	
BERRYHILL LN. / ROUNDTREE CIR.	
ARMSTRONG GLEN, PC	SCALE: AS SHOWN
9741-F SOUTHERN PINE BOULEVARD	DATE: 8-29-02
PO Box 7326	JOB NO.: 20018
Charlotte, NC 28241	SHEET

PROJECT TITLE: EBINPORT ROAD PROJECT
 APPLICANT: CITY OF ROCK HILL
 LOCATION: YORK COUNTY, SC
 DATE: AUGUST 29, 2002
 FILE: P/N #2002-1U-472

SHEET 19 OF 34



DUAL 8'x5' RCBC
 AT BERRYHILL LANE - DOWNSTREAM

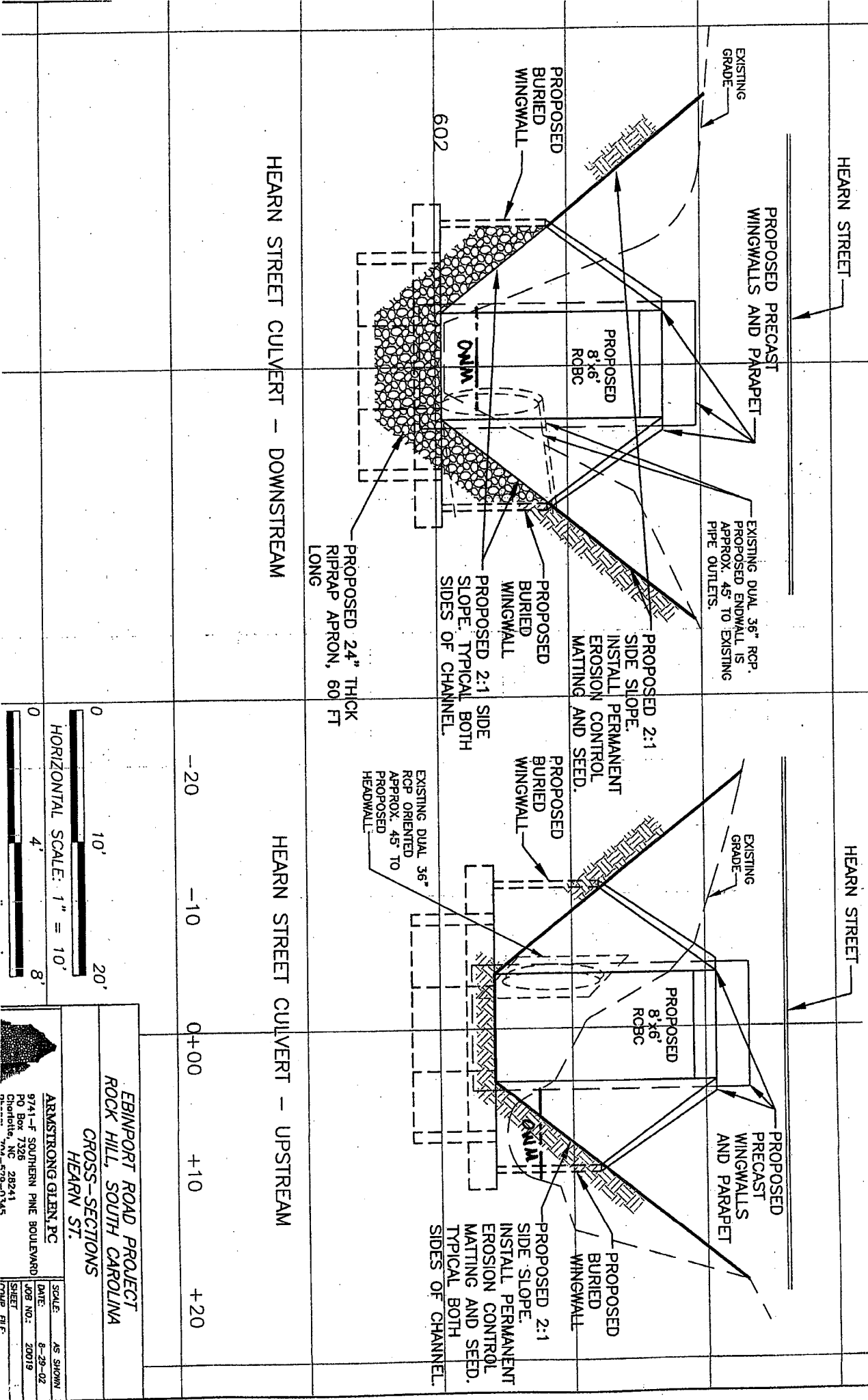
HORIZONTAL SCALE: 1" = 10'

0 10' 20' 4' 8'

EBINPORT ROAD PROJECT	
ROCK HILL, SOUTH CAROLINA	
CROSS-SECTIONS	
BERRYHILL LN. - DOWNSTREAM	
ARMSTRONG GLEN PC	SCALE: AS SHOWN
9741-F SOUTHERN PINE BOULEVARD	DATE: 8-29-02
PO Box 7326	JOB NO.: 20019
Charlotte, NC 28241	SHEET
Drawn: JML	CHECKED: PJP

PROJECT TITLE: EBINPORT ROAD PROJECT
 APPLICANT: CITY OF ROCK HILL
 LOCATION: YORK COUNTY, SC
 DATE: AUGUST 29, 2002
 FILE: P/N #2002-1U-472

SHEET 20 OF 34



HEARN STREET CULVERT - DOWNSTREAM

HEARN STREET CULVERT - UPSTREAM

0 10' 20'

HORIZONTAL SCALE: 1" = 10'

0 4' 8'

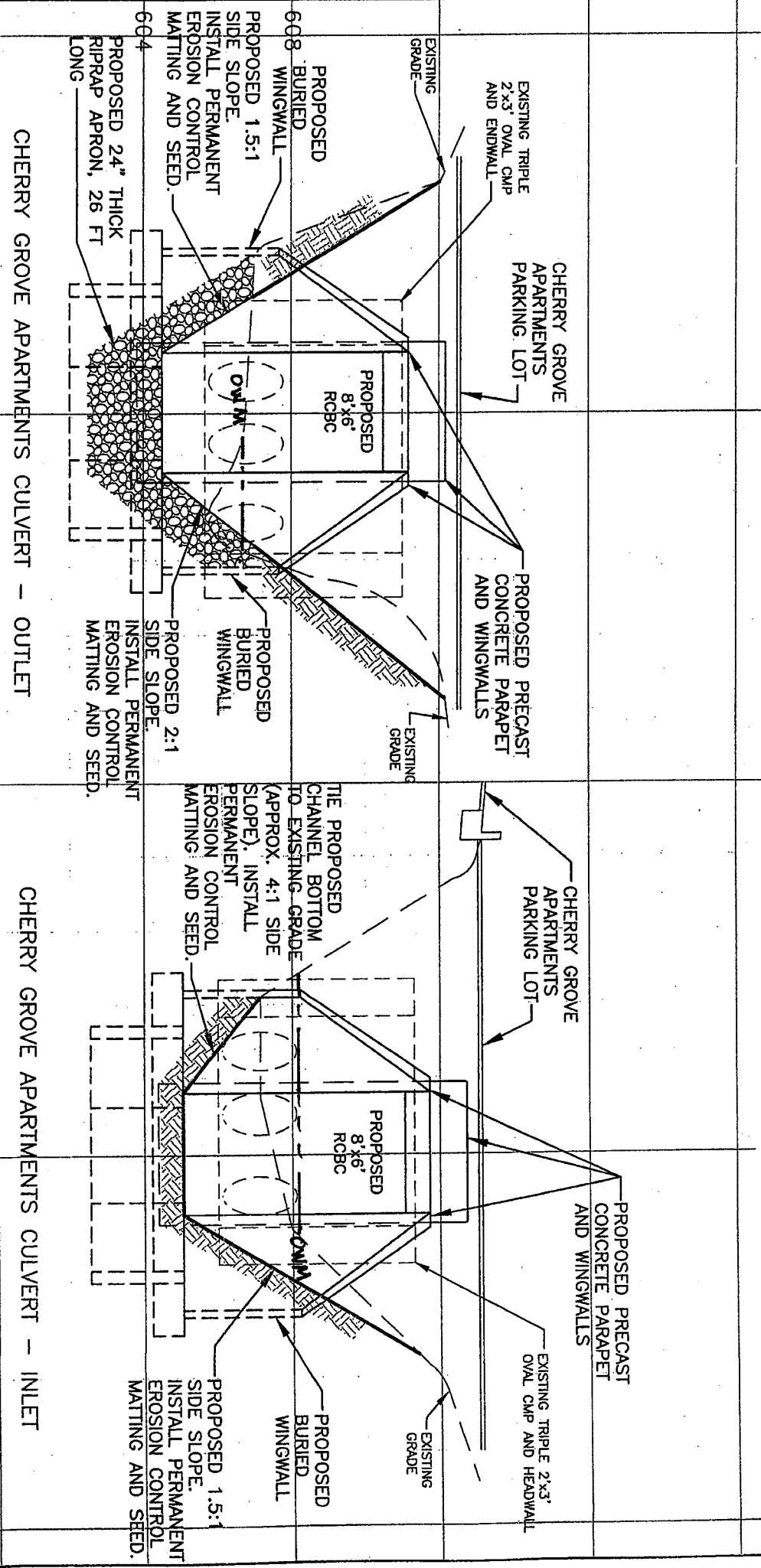
EBINPORT ROAD PROJECT
 ROCK HILL, SOUTH CAROLINA
 CROSS-SECTIONS
 HEARN ST.

ARMSTRONG GLEN, PC
 9741-F SOUTHERN PINE BOULEVARD
 PO Box 7326
 Charlotte, NC 28241
 TEL: 704-570-7345

SCALE:	AS SHOWN
DATE:	8-29-02
JOB NO.:	20019
SHEET	20 OF 34

PROJECT TITLE: EBINPORT ROAD PROJECT
 APPLICANT: CITY OF ROCK HILL
 LOCATION: YORK COUNTY, SC
 DATE: AUGUST 29, 2002
 FILE: P/N #2002-1U-472

SHEET 21 OF 34



CHERRY GROVE APARTMENTS CULVERT - INLET

CHERRY GROVE APARTMENTS CULVERT - OUTLET

0 10' 20'

0 -20 -10 0+00 +10 +20

HORIZONTAL SCALE: 1" = 10'

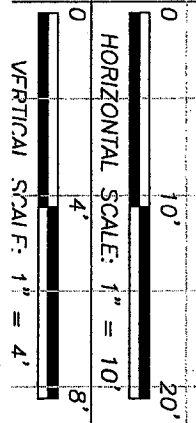
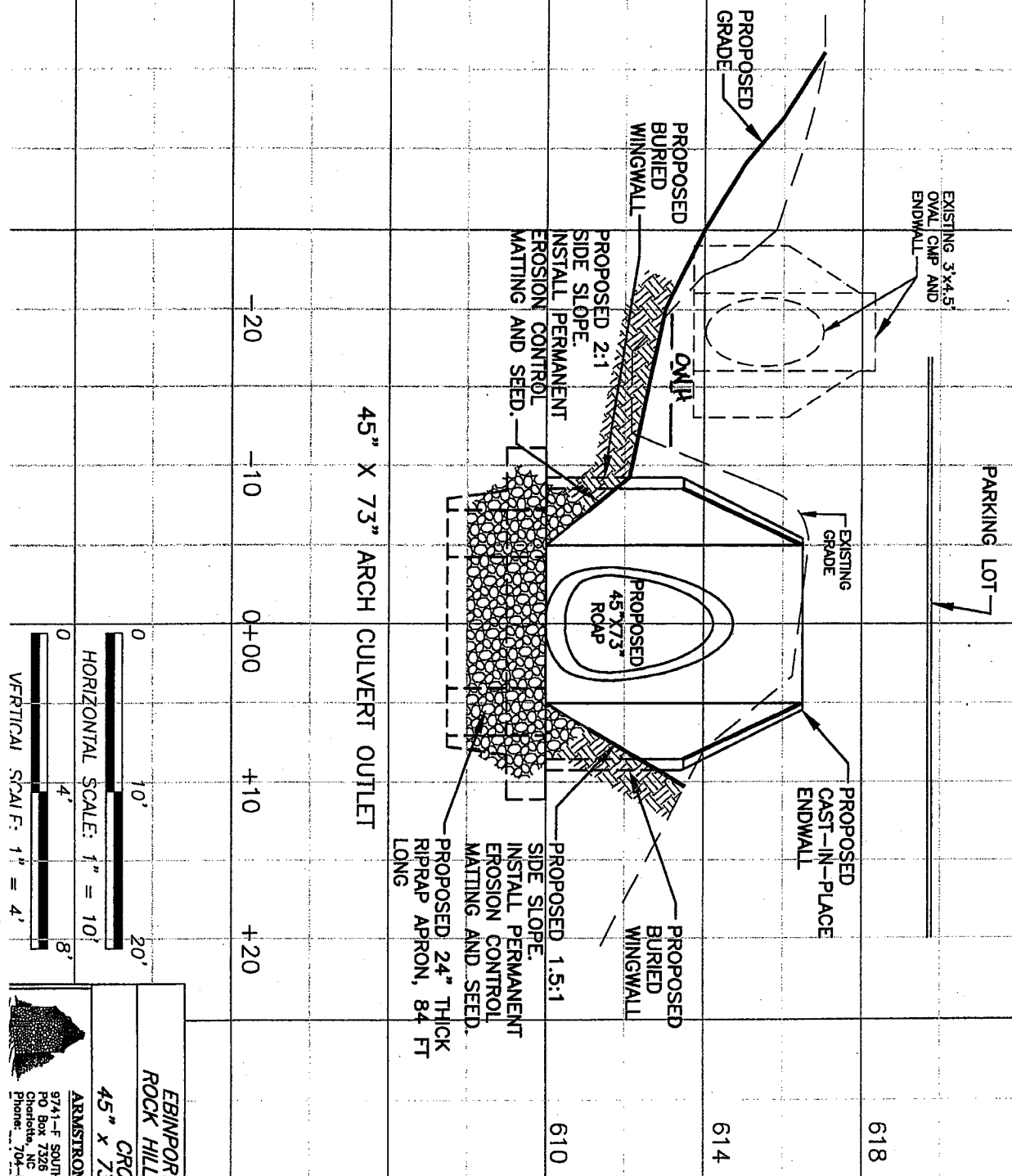
EBINPORT ROAD PROJECT
ROCK HILL, SOUTH CAROLINA
CROSS-SECTIONS
CHERRY GROVE APARTMENTS

ARMSTRONG GLEN, PC
 9741-F SOUTHERN PINE BOULEVARD
 PO Box 7326
 Charlotte, NC 28241

SCALE: AS SHOWN
 DATE: 8-29-02
 JOB NO.: 20019
 SHEET

PROJECT TITLE: EBINPORT ROAD PROJECT
 APPLICANT: CITY OF ROCK HILL
 LOCATION: YORK COUNTY, SC
 DATE: AUGUST 29, 2002
 FILE: PN #2002-1U-472

SHEET 22 OF 34



EBINPORT ROAD PROJECT
ROCK HILL, SOUTH CAROLINA

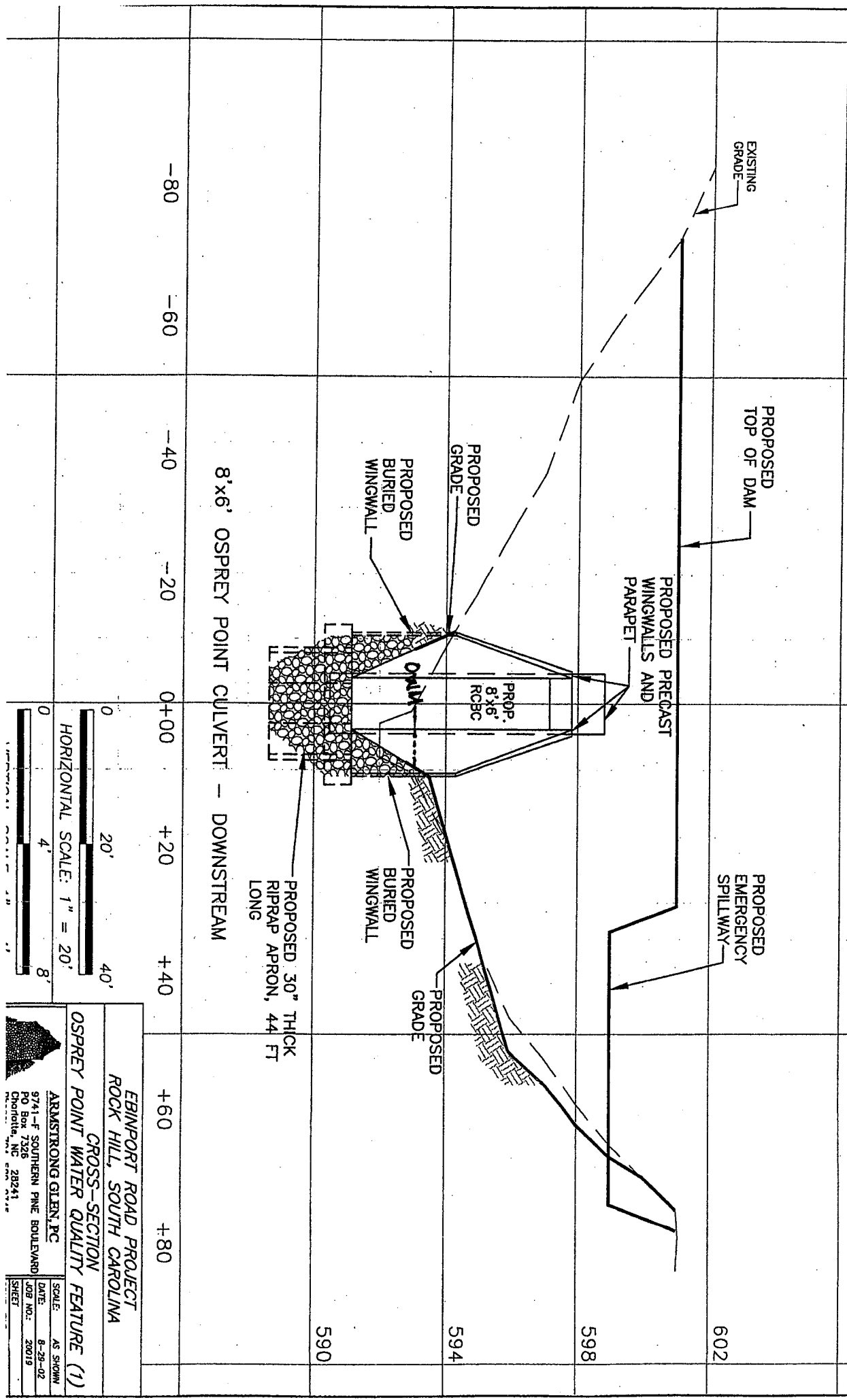
CROSS-SECTION
45' x 73' ARCH CULVERT

ARMSTRONG GLEN, PC
 9741-F SOUTHERN PINE BOULEVARD
 PO Box 7326
 Charlotte, NC 28241
 Phone: 704-529-0345

SCALE:	AS SHOWN
DATE:	8-29-02
JOB NO.:	20019
SHEET:	
COMP. FILE:	

PROJECT TITLE: EBINPORT ROAD PROJECT
 APPLICANT: CITY OF ROCK HILL
 LOCATION: YORK COUNTY, SC
 DATE: AUGUST 29, 2002
 FILE: PN #2002-1U-472

SHEET 23 OF 34



EBINPORT ROAD PROJECT

ROCK HILL, SOUTH CAROLINA

CROSS-SECTION

OSPREY POINT WATER QUALITY FEATURE (1)

ARMSTRONG GLEN, PC

9741-F SOUTHERN PINE BOULEVARD

PO Box 7326

Charlotte, NC 28241

SCALE: AS SHOWN

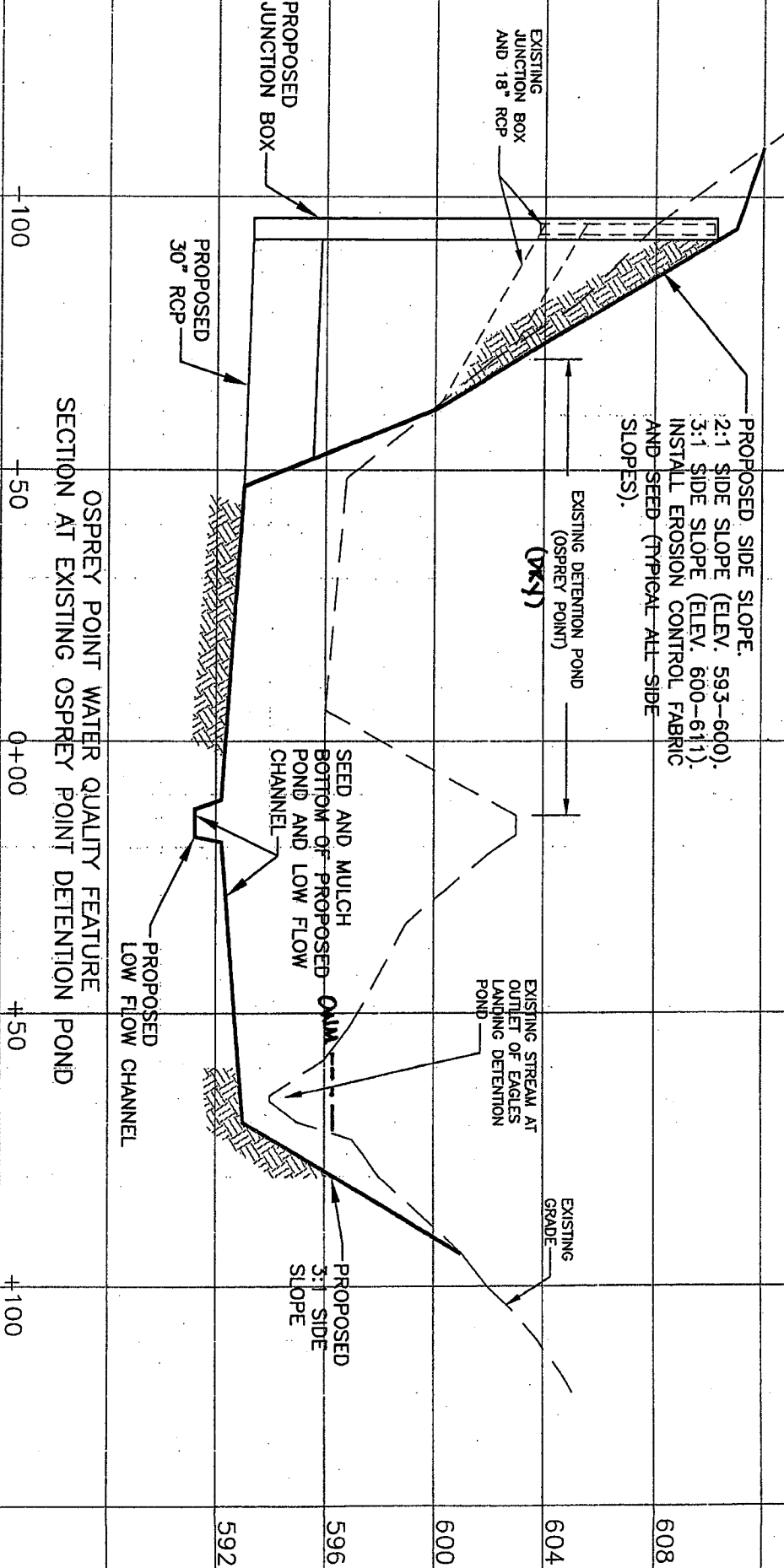
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JOB NO.: 20019

SHEET

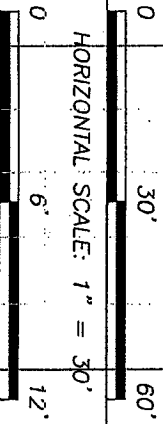
PROJECT TITLE: EBINPORT ROAD PROJECT
 APPLICANT: CITY OF ROCK HILL
 LOCATION: YORK COUNTY, SC
 DATE: AUGUST 29, 2002
 FILE: P/N #2002-1U-472

SHEET 24 OF 34



OSPREY POINT WATER QUALITY FEATURE
 SECTION AT EXISTING OSPREY POINT DETENTION POND

HORIZONTAL SCALE: 1" = 30'



EBINPORT ROAD PROJECT
 ROCK HILL, SOUTH CAROLINA

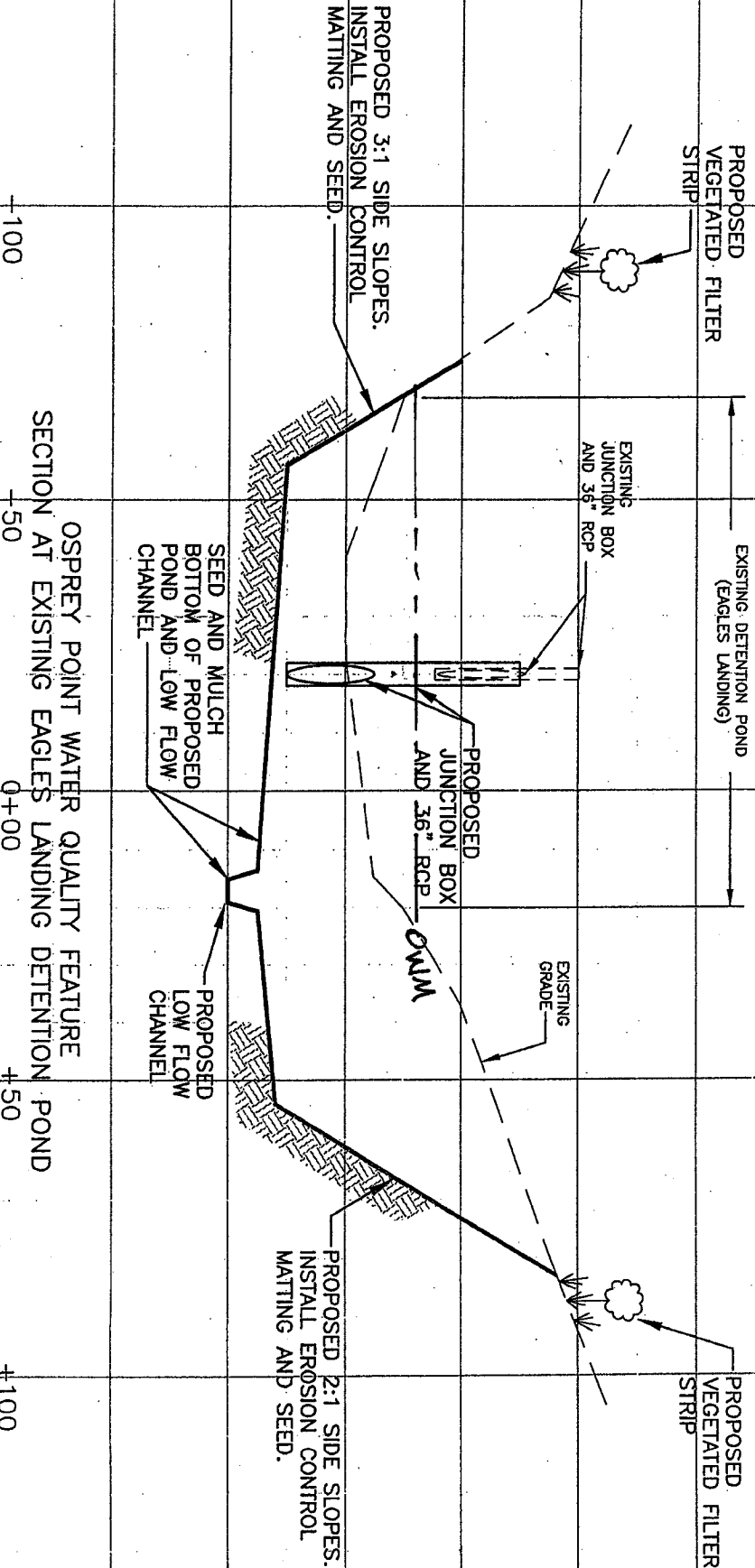
CROSS-SECTION
 OSPREY POINT WATER QUALITY FEATURE (2)

ARMSTRONG GLEN, PC
 9741-F SOUTHERN PINE BOULEVARD
 P.O. Box 1328
 Charlotte, NC 28241
 Phone: 704-592-1145

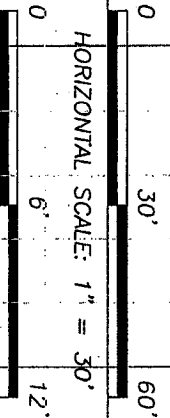
SCALE:	1" = 30'
DATE:	8-29-02
JOB NO.:	20019
SHEET:	24 OF 34

PROJECT TITLE: EBINPORT ROAD PROJECT
 APPLICANT: CITY OF ROCK HILL
 LOCATION: YORK COUNTY, SC
 DATE: AUGUST 29, 2002
 FILE: P/N #2002-1U-472

SHEET 25 OF 34



HORIZONTAL SCALE: 1" = 30'



EBINPORT ROAD PROJECT
 ROCK HILL, SOUTH CAROLINA

CROSS-SECTION
 OSPREY POINT WATER QUALITY FEATURE (3)

ARMSTRONG GLEN, PC

9741-F SOUTHERN PINE BOULEVARD
 PO Box 7326
 Charlotte, NC 28241

SCALE: 1" = 30'
 DATE: 8-29-02
 JOB NO.: 20019
 SHEET: 25 OF 34

SECTION 02485 - GRASSING

PART 1 - GENERAL

RELATED DOCUMENTS:

DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS, AND TECHNICAL SPECIFICATION SECTIONS, APPLY TO WORK OF THIS SECTION.

DESCRIPTION OF WORK:

THIS SPECIFICATION PERTAINS TO PLANTING, FERTILIZING, AND CULTIVATING GRASS ON ALL FILL SLOPES, CUT SLOPES, AND GRADED AREAS DISTURBED BY THE NEW CONSTRUCTION.

SUBMITTALS:

SUBMIT SEED VENDOR'S CERTIFIED STATEMENT FOR EACH GRASS SEED MIXTURE REQUIRED, STATING BOTANICAL AND COMMON NAME, PERCENTAGE BY WEIGHT, AND PERCENTAGES OF PURITY, GERMINATION, AND SEED FOR EACH GRASS SEED SPECIES.

DELIVERY, STORAGE, AND HANDLING:

DELIVER PACKAGED MATERIALS IN CONTAINERS SHOWING WEIGHT, ANALYSIS, AND NAME OF MANUFACTURER. PROJECT MATERIALS FROM DETRIMENTAL DURING DELIVERY, AND WHILE STORED AT THE SITE.

JOB CONDITIONS:

THIS SPECIFICATION IS INTENDED TO PROVIDE A COMPLETE GRASSING PROCEDURE WHICH IS TO BE CAREFULLY FOLLOWED. SOME PROCEDURES MAY BE ADJUSTED, UPON CONSULTATION WITH THE ENGINEER, SO AS TO MEET UNFORESEEN WEATHER AND SOIL CONDITIONS.

SPECIAL PROJECT WARNINGS:

MAINTAIN GRASSING THROUGHOUT THE SPECIFIED MAINTENANCE PERIOD, AND UNTIL FINAL ACCEPTANCE.

PART 2 - PRODUCTS

SOIL AMENDMENTS:

LIME: NATURAL, DOLOMITE LIMESTONE CONTAINING NOT LESS THAN 85% OF TOTAL CARBONATES WITH A MINIMUM OF 20% MAGNESIUM CARBONATES, GROUND SO THAT NOT LESS THAN 90% PASSES A 10-MESH SIEVE AND NOT LESS THAN 50% PASSES A 100-MESH SIEVE.

SUPERPHOSPHATE: SOLUBLE MIXTURE OF TREATED MINERALS, 20% AVAILABLE PHOSPHORIC ACID.

COMMERCEAL FERTILIZERS: COMPLETE FERTILIZER OF NEUTRAL CHARACTER, WITH SOME ELEMENTS DERIVED FROM ORGANIC SOURCES AND CONTAINING THE FOLLOWING PERCENTAGES OF AVAILABLE PLANT NUTRIENTS:

FOR GRASSING ADJACENT LAMNS, PROVIDE FERTILIZER WITH NOT LESS THAN 10% TOTAL NITROGEN, 10% AVAILABLE PHOSPHORIC ACID, AND 10% SOLUBLE POTASH. NITROGEN IS TO BE A FORM THAT WILL BE AVAILABLE TO PLANTS DURING THE INITIAL GROWTH PERIOD. AT LEAST 50% OF NITROGEN IS TO BE ORGANIC FORM.

FOR GRASSING IN UNIMPROVED AREAS, PROVIDE FERTILIZER WITH NOT LESS THAN 5% TOTAL NITROGEN, 10% AVAILABLE PHOSPHORIC ACID, AND 10% SOLUBLE POTASH.

GRASS MATERIALS:

GRASS SEED: PROVIDE FRESH, CLEAN, NEW-CROP SEED COMPLYING WITH TOLERANCE FOR PURITY AND GERMINATION ESTABLISHED BY OFFICIAL SEED ANALYSTS OF NORTH AMERICA.

ANTI-EROSION MATERIALS:

MULCH: PROVIDE CLEAN, SEED-FREE LAW OR THRESHED STRAW OF WHEAT, RYE, OATS, OR BARLEY.

ANTI-DESICANT: PROVIDE LIQUID ASPHALT OR EMULSIFIED ASPHALT TYPE FLY-ASH-FOAMING AGENT, DESIGNED TO PERMIT TRANSPORTATION BUT RETAIN EXCESSIVE LOSS OF MOISTURE. DELIVER IN MANUFACTURER'S FULLY IDENTIFIED CONTAINERS AND MIX IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

LIQUID ASPHALT (GENEROSE THINNED) IS TO BE USED DURING FREEZING WEATHER. LIQUID ASPHALT IS TO BE EITHER ROAD OR MEDIUM GRADE.

EMULSIFIED ASPHALT (WATER THINNED) IS TO BE USED WHEN TEMPERATURES ARE ABOVE FREEZING.

ENVIRONMENTAL EROSION CONTROL MATINGS: NORTH AMERICAN GREEN P-300. SEE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

PART 3 - EXECUTION

PREPARATION:

PREPARATION OF PLANTING SOIL: MIX LIME WITH DRY SOIL PRIOR TO MIXING OF FERTILIZER. PREVENT LIME FROM CONTACTING ROOTS OF ACID-LOVING PLANTS.

APPLY PHOSPHORIC ACID FERTILIZER (OTHER THAN THAT CONSTITUTING A PORTION OF COMPLETE FERTILIZER) DIRECTLY TO SUBGRADE BEFORE APPLYING PLANTING SOIL AND TILLING.

PREPARATION OF SEED BED: LOOSEN SUBGRADE OF AREAS TO BE GRASSED TO A MINIMUM DEPTH OF 4". REMOVE STONES OVER 1 1/2" IN ANY DIMENSION AND STICKS, RUBBER, AND OTHER EXTRANEIOUS MATTER. LIMIT PREPARATION TO AREAS WHICH WILL BE PLANTED PROMPTLY AFTER PREPARATION.

SEED BED IS TO CONFORM TO GROUND ELEVATIONS AS SHOWN ON THE CONSTRUCTION DRAWINGS, OR AS WAS EXISTING PRIOR TO CONSTRUCTION. LIGHT ROLLING AND NATURAL SETTLEMENT SHOULD BE TAKEN INTO ACCOUNT. THE COMPLETED SEED BED SHOULD BLEND UNIFORMLY INTO THE SURROUNDING TOPOGRAPHY.

GOOD SURFACE DRAINAGE OF THE BED MUST BE PROVIDED. VISIBLE PONDING WILL NOT BE ALLOWED.

APPLY SPECIFIED COMMERCEAL FERTILIZER AT THE SPECIFIED RATES, AND THOROUGHLY MIX INTO THE UPPER 2" OF THE SEED BED. DELAY APPLICATION OF FERTILIZER IF LAMN PLANTING WILL NOT FOLLOW WITHIN A FEW DAYS.

IN ESTABLISHED LAMN AREAS, FINE GRADE SEED BED TO A SMOOTH, EVEN SURFACE WITH LOOSE, UNIFORM FINE TEXTURE. ROLL, RAKE, AND DRAG LAMN AREAS, REMOVE RIDGES AND FILL DEPRESSIONS AS REQUIRED TO MEET FINISHED GRADES. LIMIT FINE GRADING TO AREAS WHICH CAN BE PLANTED IMMEDIATELY AFTER GRADING.

MOSTEN PREPARED LAMN AREAS BEFORE GRASSING IF SOIL IS DRY. WATER THOROUGHLY AND ALLOW SURFACE MOISTURE TO DRY BEFORE PLANTING. DO NOT CREATE A MUDDY SOIL CONDITION.

SEEDING:

DO NOT USE WET SEED OR SEED WHICH IS MUDDY OR OTHERWISE DAMAGED IN TRANSIT OR STORAGE.

SOIL SEED USING A SPREADER OR SEEDING MACHINE. DO NOT SEED WHEN WIND VELOCITY EXCEEDS 5 MILES PER HOUR. DISTRIBUTE SEED EVENLY OVER ENTIRE AREA BY SOWING EQUAL QUANTITY IN TWO DIRECTIONS AT RIGHT ANGLES TO EACH OTHER.

SOW NOT LESS THAN THE QUANTITY OF SEED SPECIFIED.

RAKE SEED LIGHTLY INTO THE TOP ONE-EIGHTH INCH OF SOIL. ROLL LIGHTLY AND WATER WITH A FINE SPRAY.

PROJECT SEED SLOPES AGAINST EROSION BY SPREADING SPECIFIED LAMN MULCH AFTER COMPLETION OF SEEDING. OVERLAP MULCH STRIPS TO FORM A CONTINUOUS BLANKET NOT LESS THAN 1 1/2".

HYDROSEEDING NEW LAMNS:

LAMN SPECIFIED SEED, FERTILIZER, AND PULVERIZED MULCH IN WATER, USING EQUIPMENT SPECIFICALLY DESIGNED FOR HYDROSEED APPLICATION. CONTINUE WORKING UNTIL UNIFORMITY, BLENDED INTO HOMOGENEOUS SLURRY, SUITABLE FOR IMMEDIATE APPLICATION.

APPLY SLURRY UNIFORMLY TO ALL AREAS TO BE SEED. RATE OF APPLICATIONS IS TO BE AS REQUIRED TO OBTAIN SPECIFIED SEED SOWING RATE.

MULCHING:

AFTER FERTILIZING, SEEDING, RAKING AND TILLING, DRYED STRAW IS TO BE UNIFORMLY SPREAD OVER THE AREA AT THE RATE OF 50 POUNDS PER 1000 SQUARE FEET. STRAW IS TO BE SPRAYED WITH LIQUID ASPHALT TO BOND AND ANCHOR IT.

LIQUID ASPHALT (GENEROSE THINNED) IS TO BE APPLIED AT A RATE OF 150 GALLONS PER TON OF STRAW (APPROXIMATELY 7 GALLONS PER 1,000 SQUARE FEET).

MAINTENANCE:

BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING.

MAINTAIN SEEDING AREAS FOR NOT LESS THAN 60 DAYS AFTER SUBSTANTIAL COMPLETION, AND LONGER AS REQUIRED TO ESTABLISH AN ACCEPTABLE STAND. IF SEEDING IN FALL AND NOT GIVEN FULL 60 DAYS OF GROWTH, MAINTENANCE ACCEPTABLE STAND AT THAT TIME. CONTINUE MAINTENANCE THE FOLLOWING SPRING UNTIL AN ACCEPTABLE STAND IS ESTABLISHED.

MAINTAIN GRASSING BY WATERING, WEEDING, MOWING, TRIMMING, AND OTHER OPERATIONS SUCH AS ROLLING, REGRAIDDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAMN, FREE OF ERODED BARE AREAS.

INSPECTION AND MAINTENANCE:

WHEN GRASSING IS COMPLETED, INCLUDING MAINTENANCE, THE ENGINEER WILL, UPON REQUEST, MAKE AN INSPECTION TO DETERMINE ACCEPTABILITY.

GRASSING MAY BE INSPECTED FOR ACCEPTANCE IN PARTS ACCEPTABLE TO THE ENGINEER, PROVIDED WORK OFFERED FOR INSPECTION IS COMPLETE, INCLUDING MAINTENANCE.

WHEN INSPECTED GRASSING DOES NOT COMPLY WITH THE REQUIREMENTS, REPLACE DEFECTED WORK AND CONTINUE SPECIFIED MAINTENANCE UNTIL, INSPECTED BY THE ENGINEER AND FOUND ACCEPTABLE.

SEASONAL SEEDING METHODS AND RATES OF APPLICATION:

SEASONAL SEEDING METHODS AND RATES OF APPLICATION SHALL BE AS FOLLOWS.

ALL RATES ARE IN POUNDS PER 1000 SQUARE FEET.

SEEDING WITHIN RIGHT-OF-WAYS OF STATE ROADWAYS WILL BE ACCOMPLISHED IN ACCORDANCE WITH THE REQUIREMENTS PERTAINING TO MAINTAINED LAMNS.

UNLESS OTHERWISE REQUIRED BY THE STATE OR THE ENGINEER (PURSUANT TO POTENTIAL EROSION OF DITCHES OR STEEP SLOPES) SEED WITHIN ROAD RIGHT-OF-WAY WILL BE TREATED LIKE ESTABLISHED LAMNS.

SEPTEMBER 15 - MARCH 1

MAINTAINED LAMNS

- 6 / KENTUCKY FESCUE NO. 31
- 2 / RYE GRASS
- 30 / FERTILIZER (10-10-10)
- 100 / LIME
- 12 / SUPERPHOSPHATE

UNIMPROVED AREAS

- 4 / KENTUCKY FESCUE NO. 31
- 2 / RYE GRASS
- 30 / FERTILIZER (5-10-10)
- 100 / LIME
- 12 / SUPERPHOSPHATE

UNIMPROVED AREAS - SLOPES GREATER THAN 2:1 OR OTHER AREAS SUBJECT TO EROSION

- 2 / KENTUCKY FESCUE NO. 31
- 4 / SERVED LESPEDeza (UNSCANNED)
- 30 / FERTILIZER (5-10-10)
- 100 / LIME
- 12 / SUPERPHOSPHATE

FEBRUARY 1 - OCTOBER 15

MAINTAINED LAMNS

- 8 / KENTUCKY FESCUE NO. 31
- 30 / FERTILIZER (10-10-10)
- 100 / LIME
- 12 / SUPERPHOSPHATE

UNIMPROVED AREAS

- 5 / KENTUCKY FESCUE NO. 31
- 2 / SUDANGRASS (JUNE, JUNE, AND JULY ONLY)
- 20 / FERTILIZER (5-10-10)
- 100 / LIME
- 12 / SUPERPHOSPHATE

END OF SECTION 02485



PROJECT TITLE: EBINPORT ROAD PROJECT

APPLICANT: CITY OF ROCK HILL

LOCATION: YORK COUNTY, SC

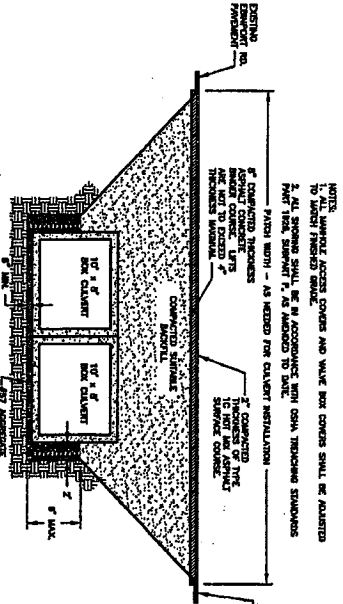
DATE: AUGUST 29, 2002

FILE: PN#2002-1U-472

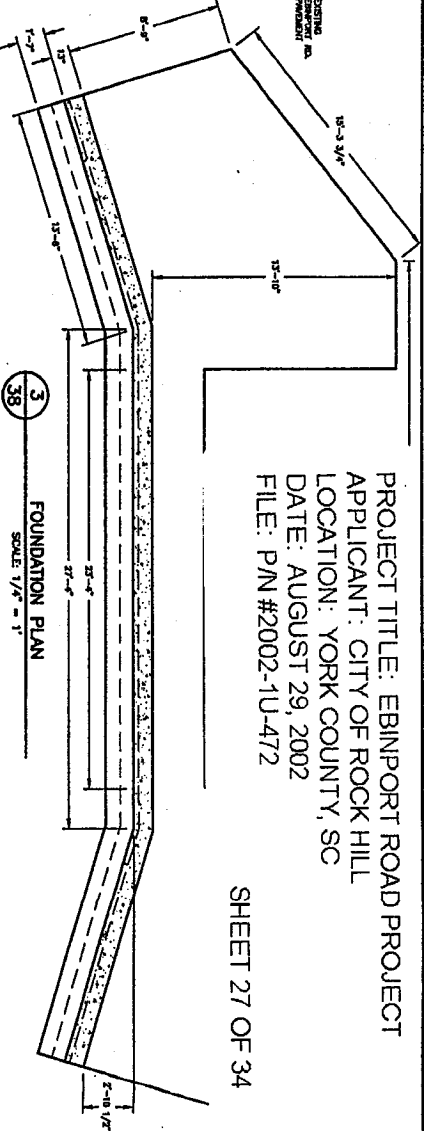
PROJECT TITLE: EBINPORT ROAD PROJECT
 APPLICANT: CITY OF ROCK HILL
 LOCATION: YORK COUNTY, SC
 DATE: AUGUST 29, 2002
 FILE: P/N#2002-1U-472

SHEET 27 OF 34

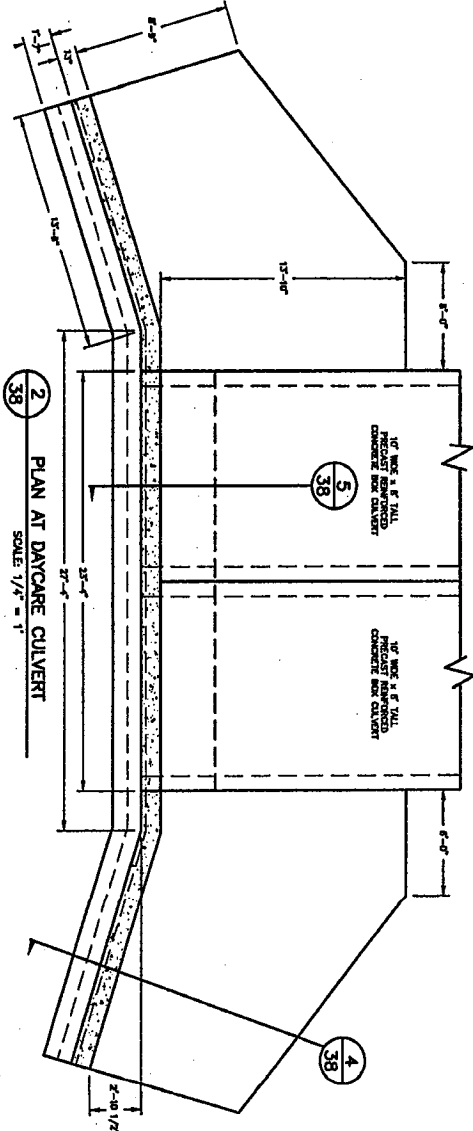
6 TRENCH REPAIR DETAIL - DAYCARE CULVERT
 SCALE 1/8" = 1'-0"



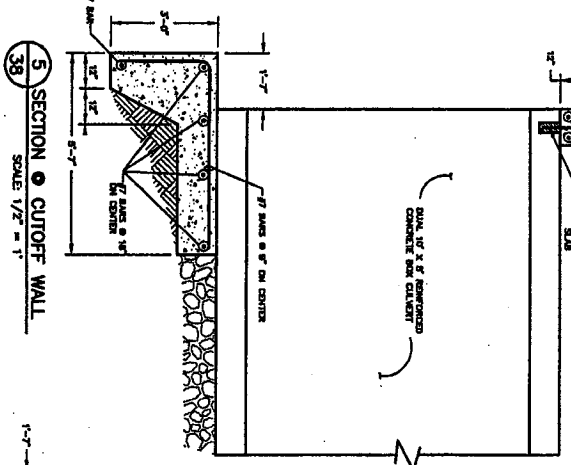
3 FOUNDATION PLAN
 SCALE 1/8" = 1'



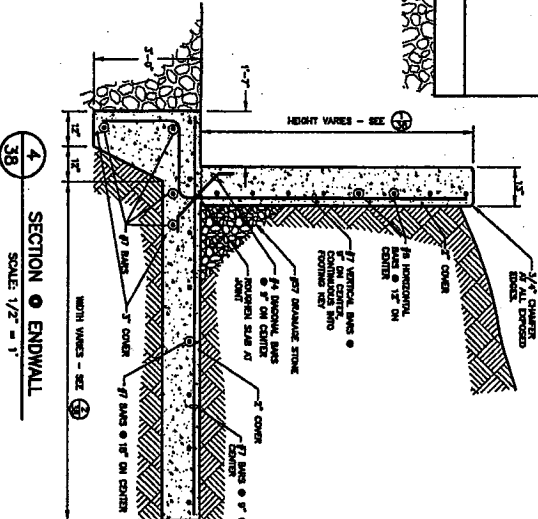
2 PLAN AT DAYCARE CULVERT
 SCALE 1/8" = 1'



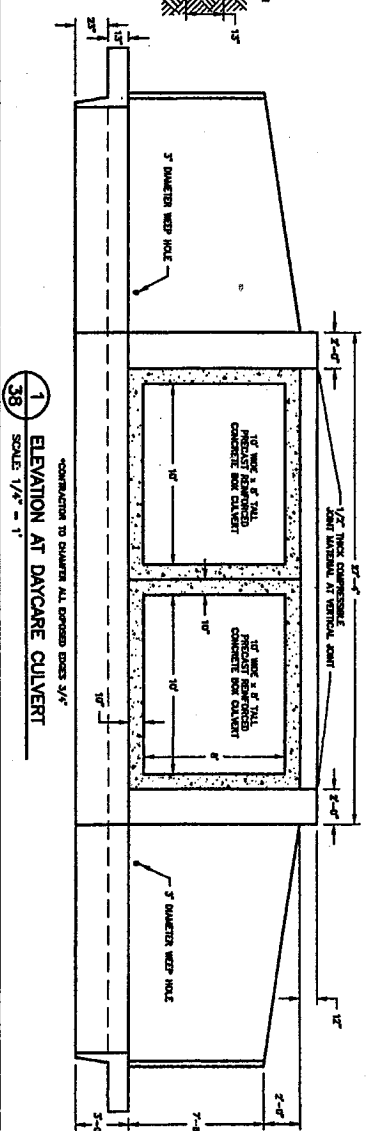
5 SECTION CUTOFF WALL
 SCALE 1/8" = 1'



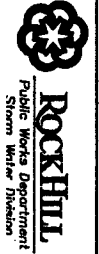
4 SECTION ENDWALL
 SCALE 1/8" = 1'



1 ELEVATION AT DAYCARE CULVERT
 SCALE 1/8" = 1'

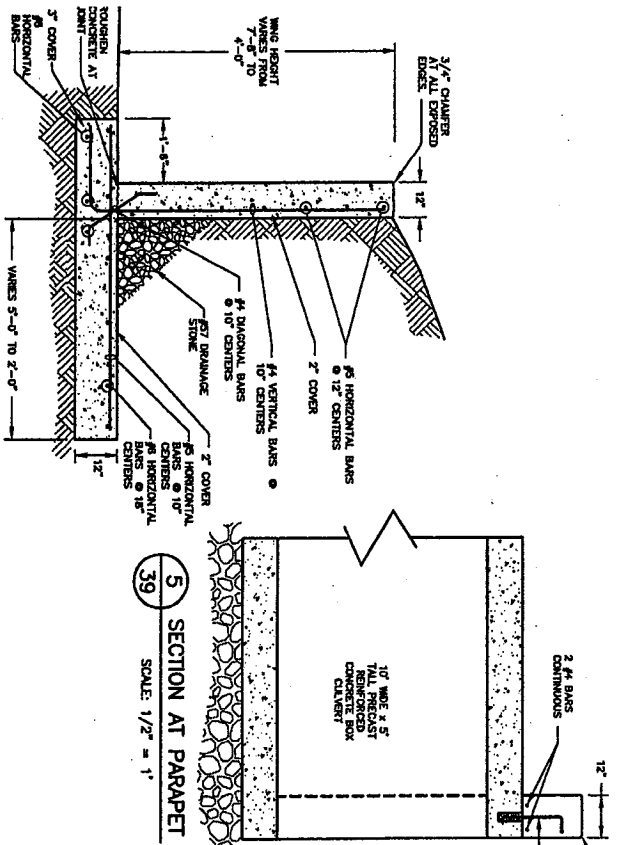


NO.	DATE	REVISION
1	8-12-02	ADDED TRENCH REPAIR DETAIL
2		
3		
4		
5		
6		
7		
8		
9		
10		

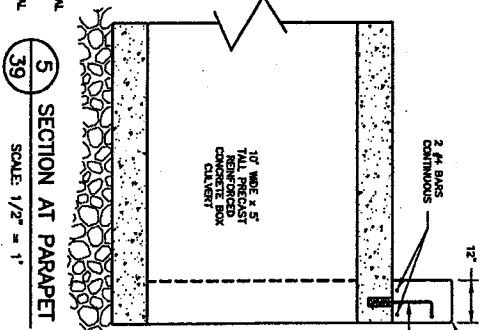


ARMSTRONG GLEN, PC
 9741-F SCOTSDALE PINE BOULEVARD
 PO Box 7328
 Charlotte, NC 28241
 Phone: 704-525-1345
 Fax: 704-525-0945

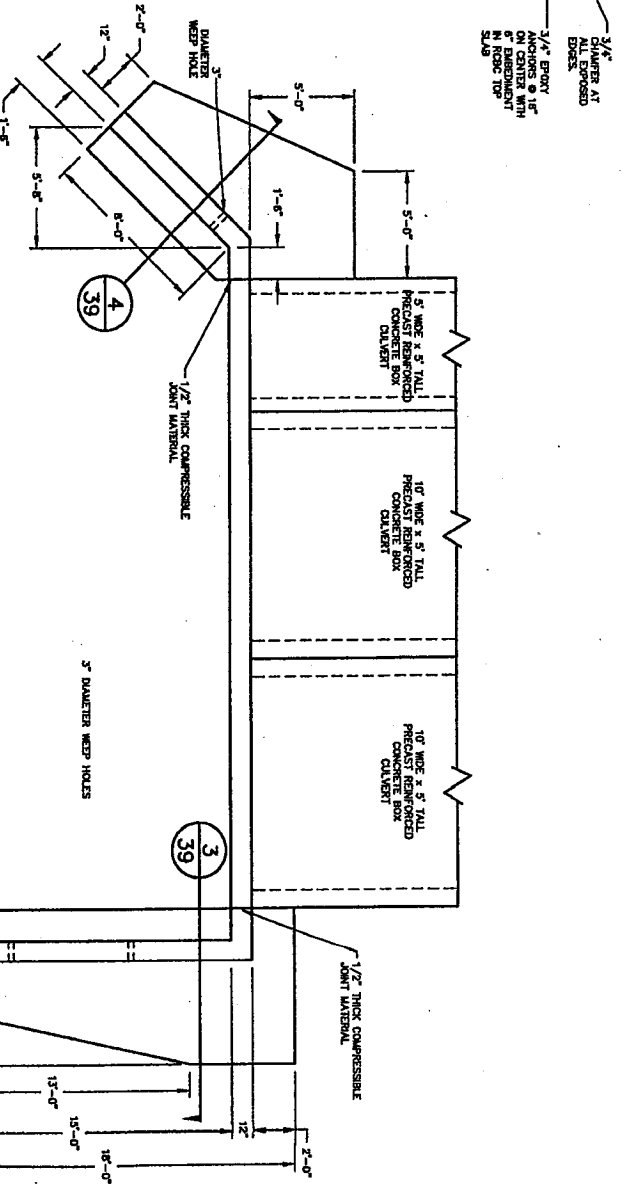
EBINPORT ROAD PROJECT
 DAYCARE BOX CULVERT DETAILS
 EBINPORT ROAD PROJECT
 CITY OF ROCK HILL, SC



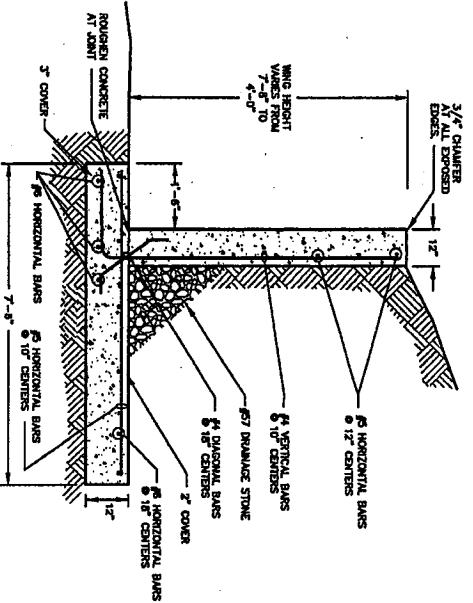
4 WING WALL SECTION
SCALE: 1/2" = 1'



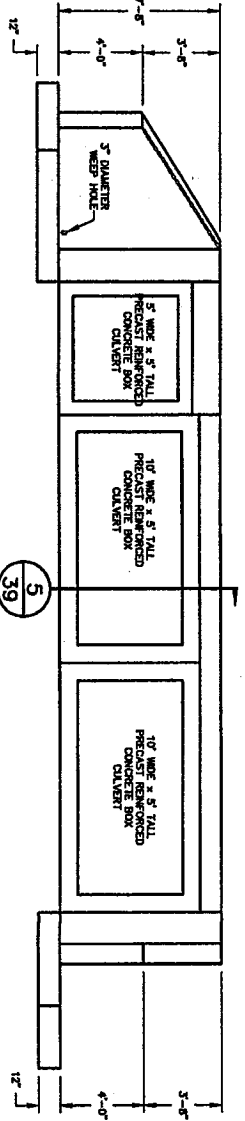
5 SECTION AT PARAPET
SCALE: 1/2" = 1'



2 PLAN AT ENDWALL LINE -B- AND -C-
SCALE: 1/4" = 1'



3 WING WALL SECTION
SCALE: 1/2" = 1'



1 PLAN AT ENDWALL LINE -B- AND -C-
SCALE: 1/4" = 1'

*CONTRACTOR TO CHAMFER ALL EXPOSED EDGES 3/4"

NO.	DATE

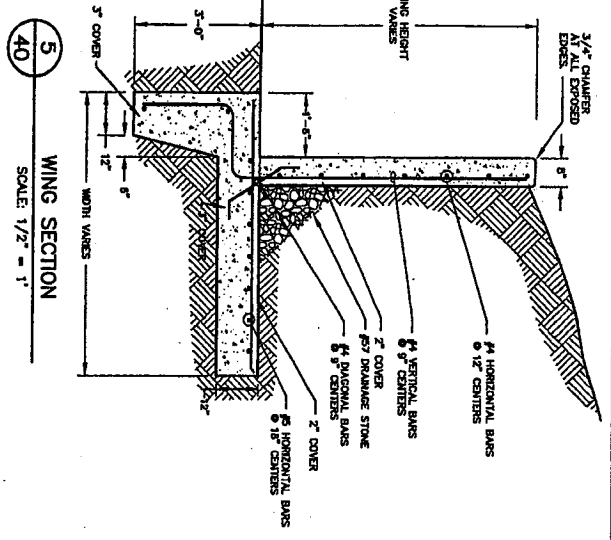


ARMSTRONG GLEN, KY
9241-F SOUTHERN PINE BL
PO Box 7236
Chapel Hill, NC 28241
Phone: 704-529-0345
Fax: 704-529-0483

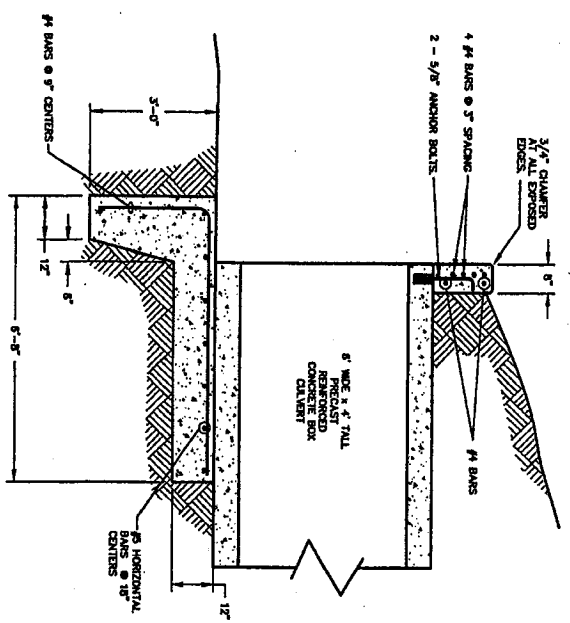
PROJECT TITLE: EBINPORT ROAD PROJECT
APPLICANT: CITY OF ROCK HILL
LOCATION: YORK COUNTY, SC
DATE: AUGUST 29, 2002
FILE: PN#2002-1U-472

PROJECT TITLE: EBINPORT ROAD PROJECT
 APPLICANT: CITY OF ROCK HILL
 LOCATION: YORK COUNTY, SC
 DATE: AUGUST 29, 2002
 FILE: PN #2002-1U-472

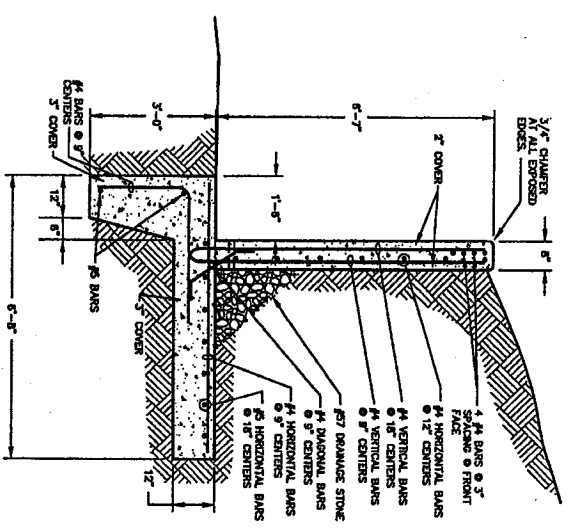
SHEET 29 OF 34



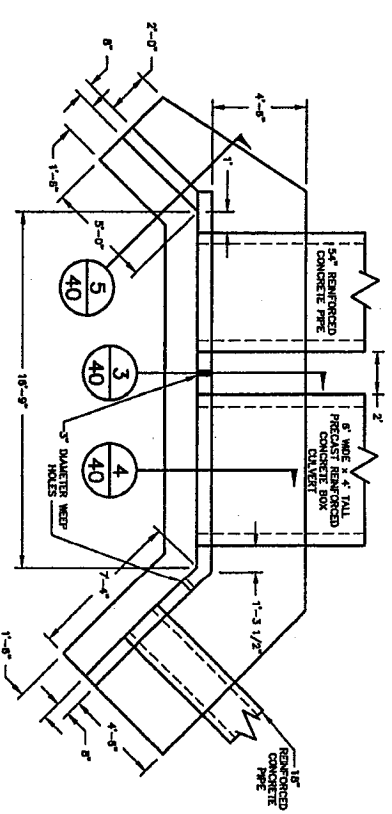
5 WING SECTION
 SCALE 1/2" = 1'



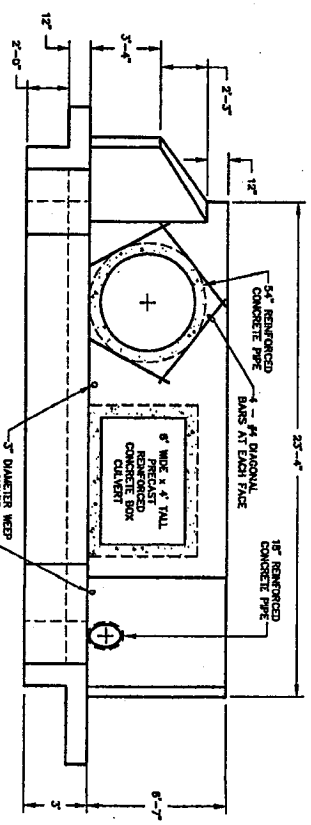
4 WALL SECTION - RCBC
 SCALE 1/2" = 1'



3 WALL SECTION
 SCALE 1/2" = 1'



2 PLAN AT ENDWALL LINE -D- AND -E-
 SCALE 1/4" = 1'



1 ELEVATION AT ENDWALL LINE -D- AND -E-
 SCALE 1/4" = 1'

CONTRACTOR TO CHAMFER ALL EXPOSED EDGES 3/4"

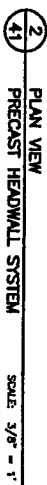
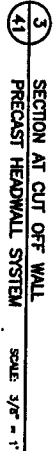
NO.	DATE



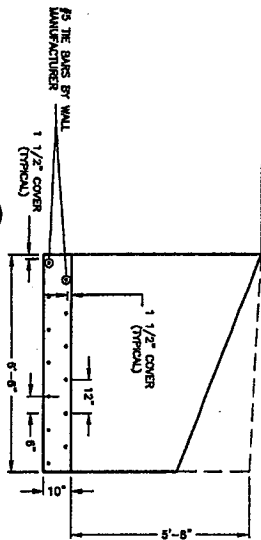
ARMSTRONG GLEN, PC
 9741-F SOUTHERN PINE BOULEVARD
 PO Box 7326
 Charlotte, NC 28241
 Phone: 704-528-0345
 Fax: 704-528-0453

EBINPORT ROAD	SCALE: AS NOTED
ENDWALL LINES -D- AND -E-	DRAWN BY: JLT
EBINPORT ROAD PROJECT	CHECKED BY: NMA
NTY NE DMMV LIII 1	1408 NOV 20019

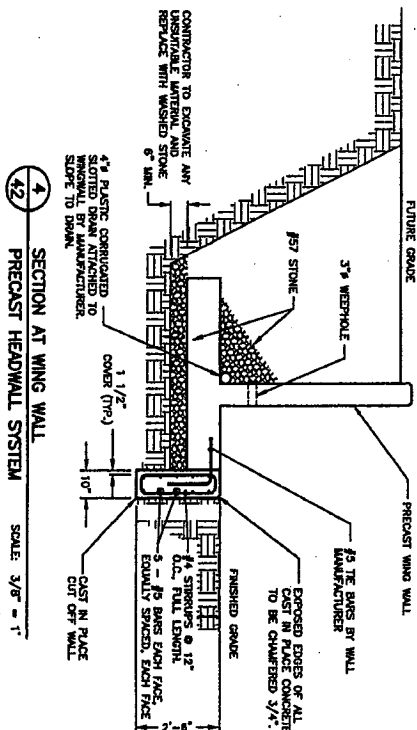
SHEET 30 OF 34



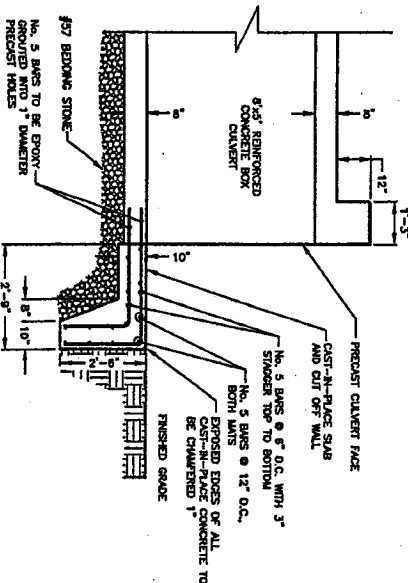
SCALE	AS NOTED
DATE:	
DRAWN BY:	JLR
CHECKED BY:	WHA
DATE	
BY	DATE



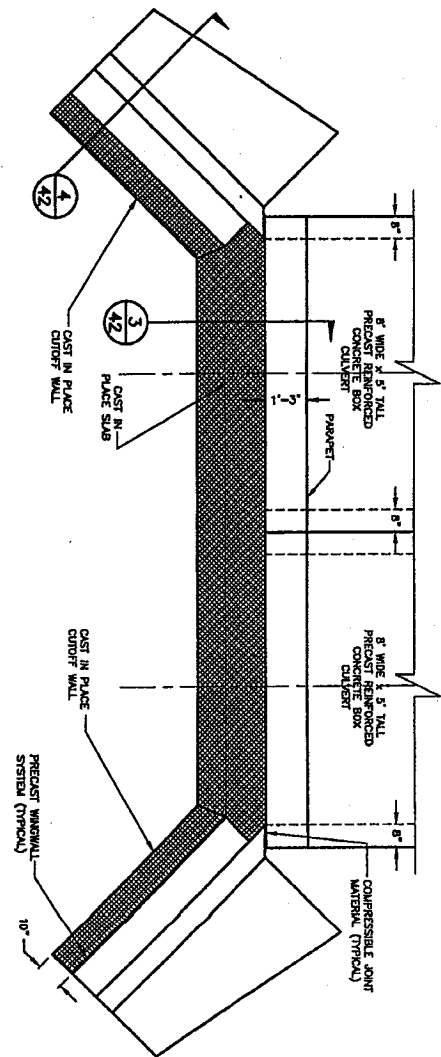
5 ELEVATION
41 PRECAST WINGWALL SCALE 3/8" = 1'



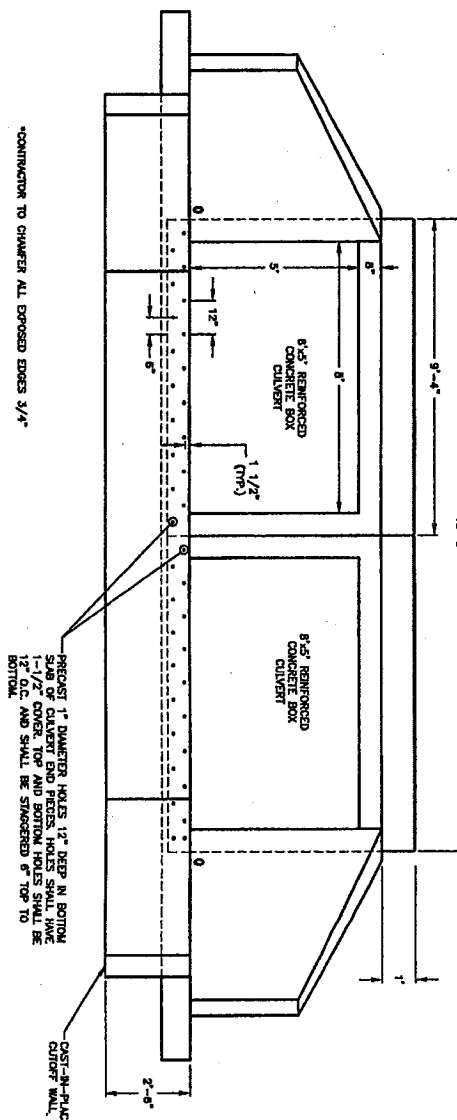
4 SECTION AT WING WALL
42 PRECAST HEADWALL SYSTEM SCALE 3/8" = 1'



3 SECTION AT CUT OFF WALL
42 PRECAST HEADWALL SYSTEM SCALE 3/8" = 1'



2 PLAN VIEW
42 PRECAST HEADWALL SYSTEM SCALE 3/8" = 1'



1 ELEVATION VIEW
42 PRECAST HEADWALL SYSTEM SCALE 3/8" = 1'

NO.	DATE	BY
1		
2		
3		
4		
5		

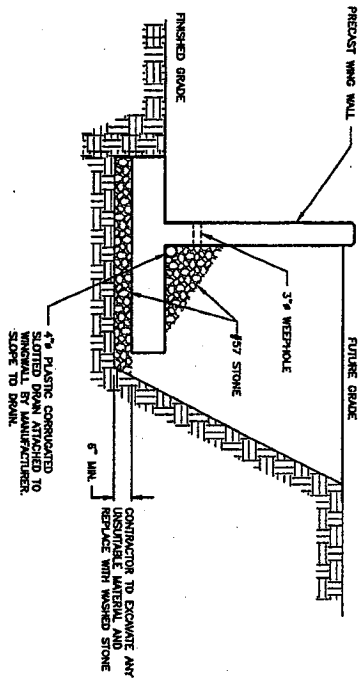


PROJECT TITLE: EBINPORT ROAD PROJECT
 APPLICANT: CITY OF ROCK HILL
 LOCATION: YORK COUNTY, SC
 DATE: AUGUST 29, 2002
 FILE: P/N #2002-1U-472

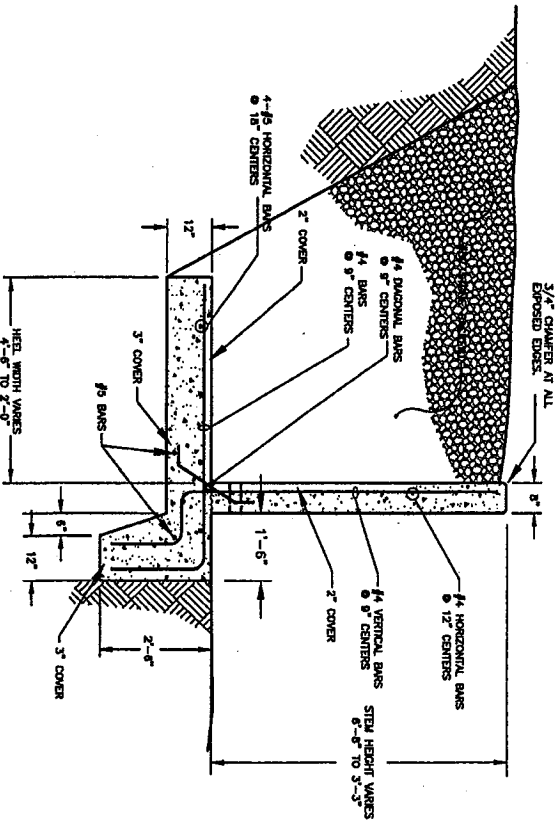
SHEET 31 OF 34

BERRYHILL/ROUNDTREE
 CULVERT DETAILS
 EBINPORT ROAD PROJECT
 CITY OF ROCK HILL, SC

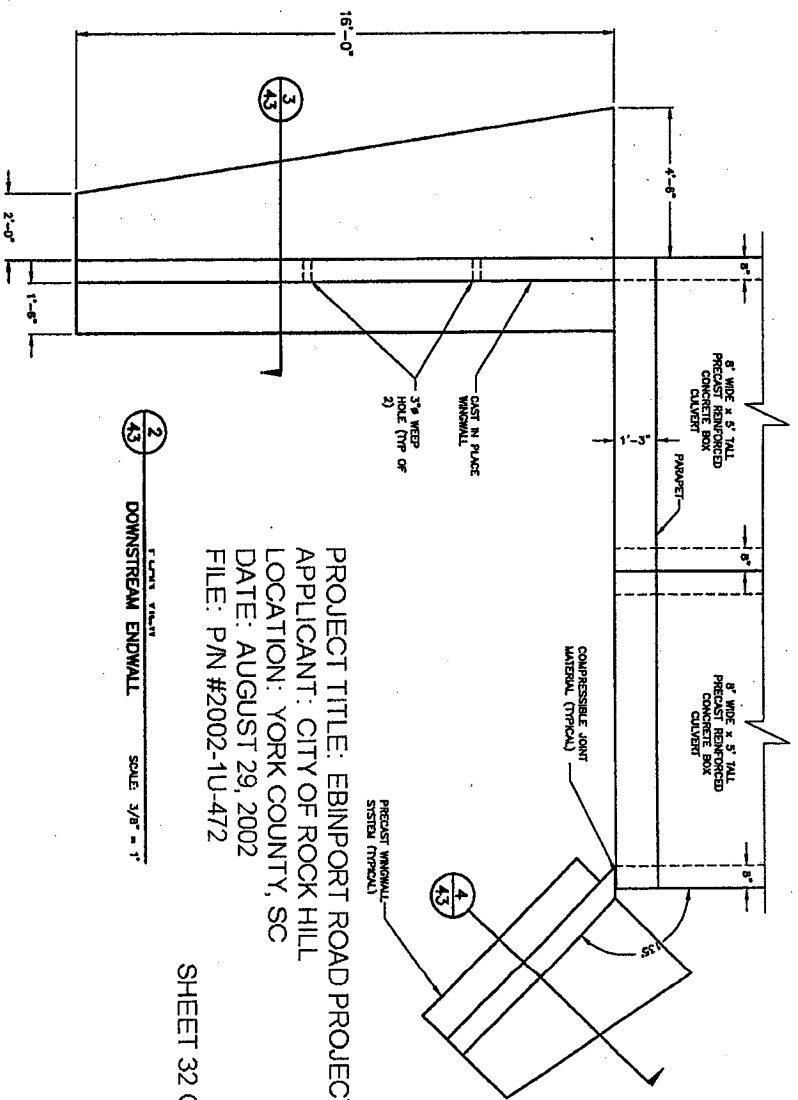
SCALE	AS NOTED
DRAWN BY	JLS
CHECKED BY	WAL
JOB NO.	20019



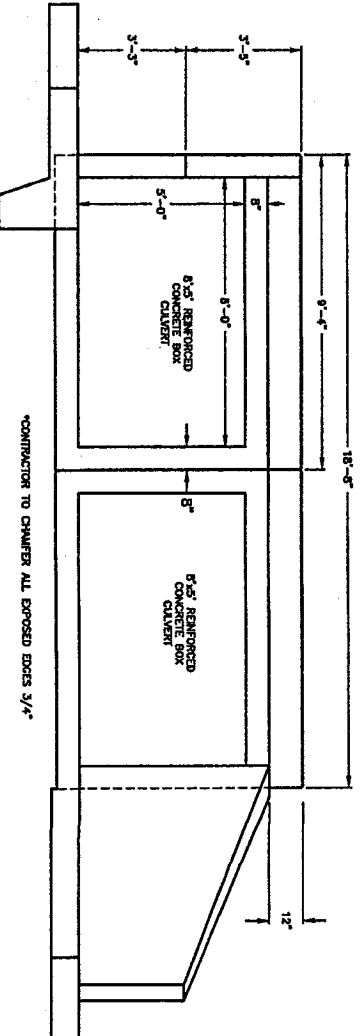
4 SECTION AT WING WALL



3 SECTION AT CAST-IN-PLACE WALL



2 ELEVATION VIEW



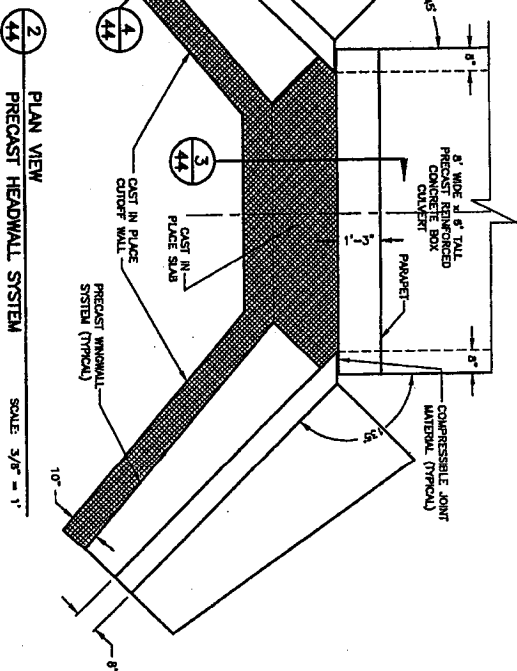
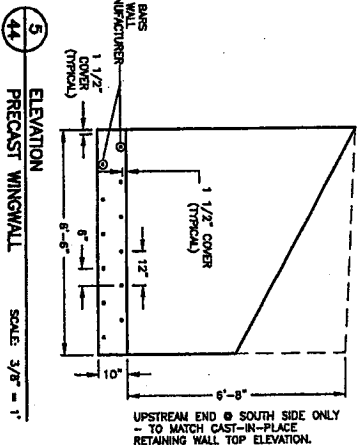
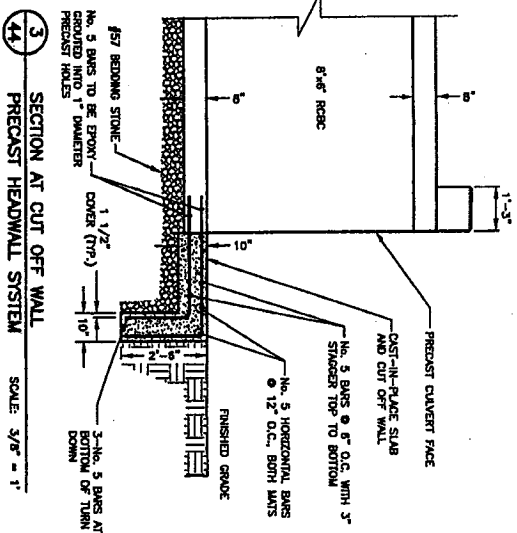
1 DOWNSTREAM END WALL

PROJECT TITLE: EBINPORT ROAD PROJECT
 APPLICANT: CITY OF ROCK HILL
 LOCATION: YORK COUNTY, SC
 DATE: AUGUST 29, 2002
 FILE: PN #2002-1U-472

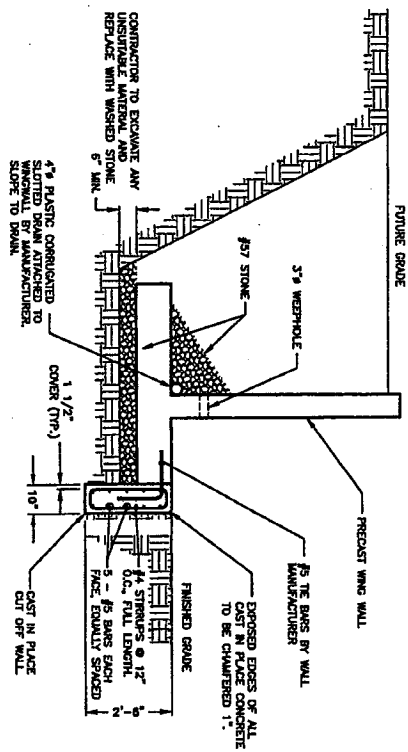
SHEET 32 OF 34

PROJECT TITLE: EBINPORT ROAD PROJECT
 APPLICANT: CITY OF ROCK HILL
 LOCATION: YORK COUNTY, SC
 DATE: AUGUST 29, 2002
 FILE: P/N #2002-1U-472

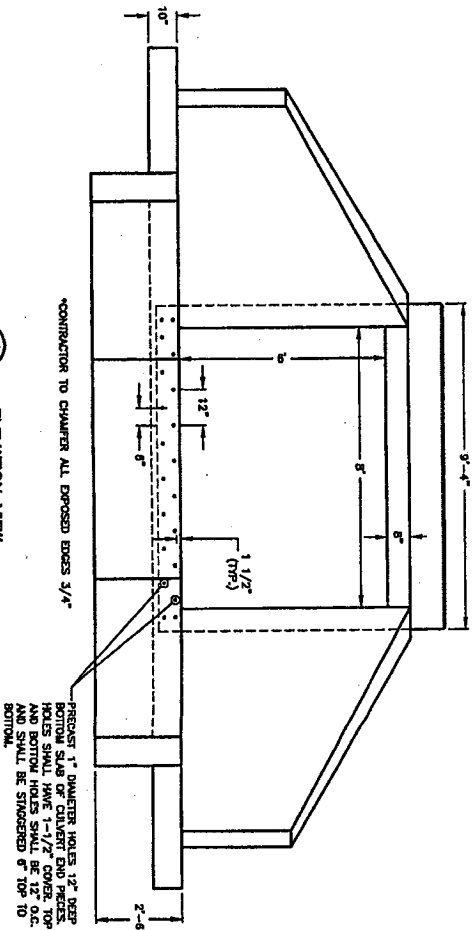
SHEET 33 OF 34



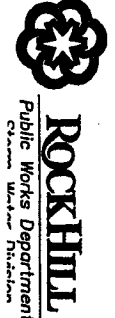
SECTION AT WING WALL
 PRECAST HEADWALL SYSTEM
 SCALE: 3/8" = 1'



ELEVATION VIEW
 PRECAST HEADWALL SYSTEM
 SCALE: 3/8" = 1'



DATE	BY

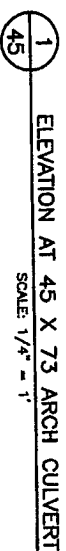
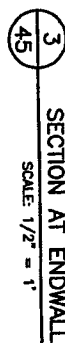
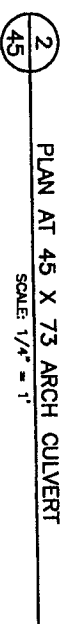


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 PO Box 7326
 Charlotte, NC 28241
 Phone: 704-528-0145
 Fax: 704-328-0453

8'x6' BOX CULVERT DETAILS
 EBINPORT ROAD PROJECT
 CITY OF ROCK HILL, SC

DATE	BY	AS NOTED

SHEET 34 OF 34



Rock Hill

ARMSTRONG GLEN, PC
9741-F SOUTHERN PINE BOULEVARD
PO Box 7326
Charlotte, NC 28241
Phone: 704-529-0345
FAX: 704-529-0401

EBINPORT ROAD
45" x 73" ARCH CULVERT DETAIL
EBINPORT ROAD PROJECT
CITY OF ROCK HILL, SC

SCALE:	AS NO.
DATE:	
DRAWN BY:	JLR
CHECKED BY:	WHA
JOB NO.:	20015